The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[*The* MINING JOURNAL *is Registered at the General Post Office as a Newspaper and for Transmission Abroad*

No. 2462.—VOL. LII. LONDON, SATURDAY, OCTOBER 28, 1882. [WITH SUPPLEMENT.] {PRICE ..... SIXPENCE BY POST, £1 4s PER ANNUM.

MR. JAMES H. CROFTS, STOCK AND SHARE BROKER AND MINING SHARE DEALER,
No. 1, FINCH LANE, CORNHILL, LONDON E.C.
ESTABLISHED 1842.

BUSINESS transacted in all descriptions of MINING Stocks and Shares (British and Foreign), Consols, Banks, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.
BUSINESS negociated in Stocks and Shares not having a general market value.
Every Friday a general and reliable List issued (a copy of which will be forwarded on application), containing closing prices of the week.
MINES INSPECTED.
BANKERS: CITY BANK, LONDON—SOUTH CORNWALL BANK, ST. AUSTELL.

SPECIAL DEALINGS in the following, or part:—

50 Almada, 15s.	50 Herodsfoot, 4s.	50 Phœnix United, £3 3 9
25 Bedford United, £2¼.	50 Indian Consol., 13s	50 Panulcillo, £6 16s.
20 Bratsberg, £2 2s. 6d.	25 Indian Phœnix, 25s.	100 Prince of Wales, 9s 6
100 Carnarvon Cop., 7s. 9	40 Indian Trevel., 12s. 6	80 Pestarena, 4s. 9d
50 Callao Bis, 8s. 6d.	50 Kapanga, 16s.	20 Ruby, £2 1s. 3d.
25 Chile Gold, 19s. 9d.	25 Killifreth, £5 8s. 9d.	50 Rhodes Reef, 13s.
100 Colombian Hyd., 7s. 6	50 La Plata, £2 3s. 9d.	20 Richmond, £8¾.
30 Consolidated, 6s.	100 Langford, 8s. 3d.	15 Roman Grav., £9 17 6
100 California, 21s. 6d.	70 Last Chance, 9s.	25 Sierra Buttes, 32s. 6d.
50 Devala Cen., 13s.	10 Leadhills, £3½.	10 S. Condurrow, £10.
50 Devala Moyar, 17s. 6d	15 Marke Valley, 16s., call paid.	50 South Darren.
20 D'Eresby Mount. 13s 6	10 Mona, £4 10s.	50 S. E. Wynaad, 33s. 9d
30 Devon Consols.	50 Mounts Bay.	50 So. Devon Uni., 17s.
100 Devon Friend., 8s. 9d	25 Morfa Du, 5s.	100 Sortridge, 7s.
70 Don Pedro, 4s. 9d.	50 Mysore Gold, 8s. 9d.	100 Simons Reef, fully paid, 2s.
30 Drakewalls, 10s.	75 Mysore Reef, 3s.	50 Tambracherry, 17s.
50 East Blue Hills, 10s. 6	50 New Kitty, £2 18s. 9d	100 Tanker. Gt. Con., 6s 9
50 Eberhardt, 8s.	50 No. Herodsfoot, 1s. 6d	50 Tresavean.
30 E. Chiverton, 19s.	100 Nouv. Monde, 12s.	10 Van, £6 7s. 6d.
20 East Lovell.	20 No. Penstruthal, 9s 6	25 West Devon, 13s.
20 E. Roman Grav., 8s.	50 New W. Caradon, 11s	50 W. Phœnix, 10s,
50 East Wheal Rose.	50 Old Owlacombe, 2s.	25 West Caradon, £1 8s.
25 Frontino, £2 17s. 6d.	50 Old Shepherds.	50 West Crebor, 10s. 9d.
100 Glenrock, £1 3s. 6d.	50 Organos.	40 West Polbreen, 15s.
20 Gold Coast, 22s. 6d.	50 Orita, 25s.	10 West Kitty, £14 12 6
25 Grogwinion, 20s.	50 Polrose, 7s.	50 Wheal Crebor.
50 Gawton, 10s.	25 Penhalls.	75 Wheal Jane, 19s. 6d.
50 Gunnislake (Clitters), £4 3s. 9d.	50 Port Phillip, 4s.	25 Wheal Jewell.
20 Hingston Down, 13s 9	50 Potosi, 9s. 6d.	50 Wheal Kitty, £2¼.
100 Hoover Hill, 3s.	75 Parys Copper, 8s. 6d.	100 Wynaad Persev., 14s

*** SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.
*** SPECIAL BUSINESS at CLOSE PRICES in all Market TIN, COPPER and LEAD SHARES.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

RAILWAYS — FOREIGN BONDS — SPECIAL BUSINESS.
Fortnighly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

AMERICAN AND CANADIAN STOCKS AND SHARES—SPECIAL BUSINESS.
Fortnightly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

OPTIONS, SINGLE or DOUBLE, dealt in at close market prices.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

INDIAN GOLD MINES.—SPECIAL BUSINESS in:—

	Indian Phœnix.	Rhodes Reef.
Devala Moyar.	Indian Kingston.	South-East Wynaad.
Devala Central.	Indian Trevelyan.	Tambracherry.
Indian Consolidated.	Mysore.	Wynaad Perseverance.
Indian Glenrock.	Ooregum.	

At CLOSE MARKET PRICES, free of commission.
*** Reliable information given on any of the above. A daily price list issued giving closing quotations. SPECIAL BUSINESS in California, La Plata, Rio Tinto, Frontino and Bolivia, Potosi, Chile, Nouveau Monde, Ruby, Richmond.
*** SHARES IN THE ABOVE INDIAN OR OTHER GOLD AND SILVER MINES SOLD FOR FORWARD DELIVERY ONE, TWO, OR THREE MONTHS ON DEPOSIT OF TWENTY PER CENT.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.
ESTABLISHED 1842.

ELECTRIC LIGHT SHARES — SPECIAL BUSINESS.

Maxim-Weston.	Anglo-American Brush.	Pilsen-Joel.
Jablochkoff.	Midland Brush.	Hammond.
	Metropolitan Brush.	

Shares sold for cash, account, or for forward delivery (one, two, or three months) on deposit of 20 per cent.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

MR. W. H. BUMPUS, STOCK AND SHARE BROKER,
AND MINING SHARE DEALER
44, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1867.

BUSINESS transacted in STOCK EXCHANGE SECURITIES and MISCELLANEOUS SHARES of every description.
RAILWAYS, BANKS, FOREIGN and COLONIAL BONDS.
TRAMWAYS, TELEGRAPHS, and all the LEADING INVESTMENTS.
Accounts opened for the Fortnightly Settlement
A List of Investments free on application.
MR. BUMPUS has SPECIAL BUSINESS in the undermentioned:—

100 Almada, 15s.	50 East Roman Gravels.	50 New Wye Valley, 11s.
100 Akankoo.	25 Frontino, £3.	100 Old Shepherds.
50 Bedford Unit., 47s.	20 Gunnislake (Clitters),	25 Organos (Gold), £2½.
75 Bratsberg, £2 5s.	50 Gawton Copper, 10s.	50 Orita (Gold).
50 Bwlch United.	40 Grogwinion, 22s. 6d.	200 Ooregum (Gold), 5s 9
150 Callao Bis, 8s. 6d.	100 Gold Coast, 21s. 6d.	150 Port Phillip, 4s. 6d.
2 Cape Copper.	20 Great Holway.	100 Potosi, 10s.
25 Coplapo, £4½.	150 Goodevere, 23s.	75 Pen-yr-Orsedd,
100 Chile Gold, 21s.	70 Herodsfoot, 5s.	20 Panulcillo, £6⅞.
70 California Gold, 21s.	50 Hingston Down, 10s. 6	30 Ruby, £2 5s.
50 Columbian Hydraulic, 7s. 6d.	100 Indian Glenrock, 22s. 6d.	25 Richmond, £8⅞.
100 Carnarvon Cop., 7s 6d	50 Indian Phœnix, 25s.	100 Rhodes Reef, 13s. 9d.
5 Cook's Kitchen.	100 Indian Trevelyan, 12s. 6d.	50 Red Rock.
5 Carn Brea.	100 Indian Consolidated, 14s.	150 Sortridge.
50 Drake Walls, 10s. 6d.	50 Kohinoor.	100 Tresavean, 25s.
100 Don Pedro, 5s.	75 Kapanga, 17s. 6d.	70 Tankerville, 6s. 3d.
150 Devala Moyar, 17s. 6d	15 Killifreth.	5 Van, £6½.
3 Dolcoath.	25 Leadhills, £3 8s. 9d.	100 Wynaad Perseverance
15 Devon Cons., £6½.	150 La Plata, 42s. 6d.	25 Wheal Kitty, £2¼.
100 Devon Friendship, 9s. 6d.	15 Mona.	50 W. Godolphin, 31s.
50 Devalah Central.	100 Mounts Bay Consols. 16s. 3d.	15 West Kitty, £14¼.
60 East Blue Hills, 11s 6	30 Marke Valley.	50 West Polbreen.
50 East Caradon.	25 New Trumpet Cons., 17s. 6d.	100 Wheal Jane.
100 Eberhardt, 8s. 6d.		20 Wheal Grenville, £10½.
75 East Wheal Rose, 23s.		50 West Caradon.
25 East Chiverton.		10 Wheal Crebor.
		40 Ystwith.

Where prices are not inserted, offers may be made.
SPECIAL BUSINESS, at close prices, in the SHARES of all the principal HOME and FOREIGN MINES.

IMPORTANT TO INVESTORS.—The satisfactory position and prospects of the metal markets (particularly TIN and COPPER) are causing investors and others to turn their attention to shares in SOUND DIVIDEND and PROGRESSIVE MINES, many of which may now be bought at very low prices, and are likely to improve considerably in value within the next few months.
The present is a very favourable opportunity for securing CHEAP SHARES.

Mr. BUMPUS devotes special attention to these Securities, and is in a position to afford reliable information and advice to intending investors and others.

WILLIAM HENRY BUMPUS, SWORN BROKER.
OFFICES: 44, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1867.

BRITISH AND FOREIGN MINING OFFICES.
MESSRS PETER WATSON AND CO.,
18, AUSTIN FRIARS,
OLD BROAD STREET, LONDON, E.C.
BANKERS: THE ALLIANCE BANK (Limited).

MESSRS. PETER WATSON AND CO.'S BRITISH AND FOREIGN MONTHLY MINING NEWS—STOCK AND SHARE INVESTMENT NOTES—MINES, MINERALS, AND METAL MARKETS—SHARE LIST, No. 847, VOL. XVII., for NOVEMBER month, will shortly be ready, and will be sent to customers on application.

Annual Subscription..... 5s. | Single Copy..... 6d.

MESSRS. PETER WATSON AND CO.,
18, AUSTIN FRIARS, E.C.

ROMAN GRAVELS.	SOUTH WHEAL FRANCES.
TANKERVILLE GREAT CONSOLS.	WEST WHEAL SETON.
LEADHILLS.	DOLCOATH.
DEVON GREAT CONSOLS.	DRAKEWALLS.
DEVON GREAT UNITED.	KIT HILL GREAT CONSOLS.
SOUTH DEVON UNITED.	RICHMOND.

Shareholders in any of the above-named companies, desirous of DISPOSING of their SHARES may obtain the full market prices on application to—
MESSRS. PETER WATSON AND CO.,
18, AUSTIN FRIARS, LONDON, E.C.

MR. ALFRED E. COOKE,
DEALER in BRITISH and FOREIGN STOCKS and SHARES of EVERY DESCRIPTION.
(FROM 76, OLD BROAD STREET)
ESTABLISHED 1853.
9, OLD BROAD STREET, LONDON.

STOCKS AND SHARES FOR SALE.
Mr. ALFRED E. COOKE can SELL the following lots (or any smaller number of shares) to immediate applicants at prices annexed, free of commission:—
Where prices are not inserted, the market price of the day will be taken, or offers may be made:—

40 Bratsberg Cop., £2⅛.	50 Langford Silver, 8s. 6	20 Parys Copper, 9s. 6d.
50 Callao Bis Gold, 8s. 3d	60 Mounts Bay Consols.	20 Richmond Silver.
50 Canada Gold.	25 New Kitty Tin, £3.	10 Ruby.
50 Colombian Hydraulic Gold, 5s. 6d.	40 New West Caradon Copper.	20 South-East Wynaad Gold.
40 Devon Friend., 8s. 6d	50 Nouveau Monde Gold 11s. 3d.	100 Sortridge Copper and Tin, 6s. 9d.
50 East Rose Lead.	55 North Blue Hills, 3s 6	30 Tanker. Gt. Con., 6s 9
25 E. Blue Hills Tin, 9s 9	50 Old Shepherds Lead.	50 Tresavean Copper & Tin.
10 Frontino Gold, £2⅞.	10 Organos.	30 W. Crebor Copper.
20 Frongoch Lead.	40 Orita Gold, 26s., fully paid.	5 West Kitty Tin, 14¾
50 Goginan Lead, 20s.	30 North Grogwinion Lead, 20s.	70 W. Polbreen Tin, 15s.
60 Gold Coast, 5s. paid, 7s. 6d.	40 Prince of Wales Cop., 10s.	10 Wheal Jane Tin, 20s.
30 Herodsfoot, 4s. 6d.		25 Wh. Crebor Cop., £3½
40 La Plata Lead, £2½.		50 W. Devon Cop., 13s 6
10 Leadhills.		

SPECIAL NOTICE.
In consequence of the CONTINUED ADVANCE in price of many shares, BUYERS should, if possible, TELEGRAPH AT ONCE if they wish to secure shares at prices offered.
Many of the above shares can be sold for settlement by arrangement at the end of November account on payment of 20 per cent. deposit Shares not found in the above list may be purchased on application.
In order to save UNNECESSARY CORRESPONDENCE, it is particularly requested that BUYERS of SHARES in the above list, to which prices are not affixed, will make definite offers when applying for them. SELLERS of SHARES are also invited in all cases to name the very lowest price at which they desire to sell.
SPECIAL BUSINESS in all INDIAN and FOREIGN GOLD MINES at closest current prices.

TO INVESTORS.
The FOLLOWING SHARES should be PURCHASED for a GOOD RISE in PRICE. MR. ALFRED E. COOKE can supply at LOWEST QUOTATIONS:—

PRINCE OF WALES.	WEST CREBOR.	DEVON FRIENDSHIP.
LANGFORD.	SORTRIDGE.	WEST DEVON.

GREAT REVIVAL IN THE MINING SHARE MARKET.
INVESTORS should apply at once for the INVESTORS' GAZETTE, Will be forwarded to BONA-FIDE investors post free, on the understanding that any business resulting from its perusal will be transacted with Mr. ALFRED E. COOKE, by whom it is published.
TELEGRAMS and LETTERS receive immediate attention. All shares currently dealt in, bought and sold, free of commission.
SPECULATIVE ACCOUNTS OPENED ON RECEIPT OF COVER.
PRICES of every description of STOCKS and SHARES are received continuously throughout the day by TELEGRAPH from the STOCK EXCHANGE.
MR. ALFRED E. COOKE'S OFFICES are connected by TELEPHONE with the Subscribers to the United Telephone Company, whereby INSTANTANEOUS COMMUNICATION can be established in all parts of London. TELEPHONE NUMBER, 1268.
ALFRED E COOKE, 9, OLD BROAD STREET, LONDON.
(Opposite the Stock Exchange, with which the offices are in DIRECT TELEGRAPHIC COMMUNICATION.)

MR. JAMES STOCKER, STOCKBROKER,
2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.
Has special business in the following for cash or settlement by arrangement:—

Akankoo, 10s. 3d.	Indian Glenrock, 21s 6	Polrose.
Almada, 13s. 6d.	Kapanga, 14s. 6d.	Prince of Wales, 9s 6d
Bedford United, 43s 9d	Langford, 10s.	Richmond, £8⅝.
Bratsberg, 42s.	La Plata, 42s. 6d.	Sortridge, 7s.
Chile Gold, 20s. 6d.	Leadhills, £3 8s. 9d.	So. E. Wynaad, 30s. 6d.
Clitters, £4 2s.	Mounts Bay.	Tresavean, 22s.
Colombian, 7s. 6d.	New Kitty, 47s. 6d.	Tankerville, 7s.
Devon Friendship, 8s 9	New W. Caradon, 11s 9	West Caradon, 31s.
Devala Moyar, 15s. 6d.	North Blue Hills, 3s 6d	West Crebor, 10s.
East Blue Hills.	Nouveau Monde, 11s. 3	West Devon, 14s.
East Caradon, 16s. 6d.	Old Shepherds, 16s. 6d.	Wheal Crebor, £3 8s. 9d
East Rose, 21s. 3d.	Organos.	Wheal Kitty, 43s. 6d.
Gawton, 9s. 3d.	Orita, 25s. 6d.	Wheal Jane, 20s.
Hornachos, £5¼.	Parys Copper, 9s.	Wheal Uny, 5¼.
	Penhalls, £2s.	

BANKERS: LONDON AND WESTMINSTER.

MR. W. B. COBB, STOCK AND SHARE DEALER,
29, BISHOPSGATE-STREET, LONDON, E.C.

MR. JOHN RISLEY, STOCK AND SHARE BROKER,
38, CORNHILL, LONDON, E.C.
ESTABLISHED TWENTY YEARS.
West Caradon, New West Caradon, and New Caradon strongly recommended to investors.
West Caradon continues to open up very rich for copper, as will be seen by the weekly reports. The shares will no doubt command a very high price a few months hence.
A hint to the present shareholders. East Caradon shares rose from 2s. to £55 per share on a similar rich discovery being made in the district.

MR. CHARLES SANTER, STOCK AND SHARE DEALER,
3, COPTHALL BUILDINGS (close to Stock Exchange), LONDON, E.C.
has special dealings in the following Shares:—

Bedford United.	Killifreth.	Tresavean.
Cook's Kitchen.	Mounts Bay Consols.	Tincroft.
Dolcoath.	North Levant.	West Caradon.
East Wheal Rose.	Old Shepherds.	West Kitty.
Great Laxey.	Phœnix United.	West Devon.
Gunnislake (Clitters).	Sortridge.	Wheal Crebor.

There is likely to be a considerable rise in the mines which are about to make returns, such as East Wheal Rose, Mounts Bay, Old Shepherds, Tresavean, West Devon, and Sortridge.

THE
"DIFFERENTIAL"
PUMPING ENGINE.
(DAVEY'S PATENT),
FOR
DRAINING MINES, WATER SUPPLY OF TOWNS, IRRIGATION, SUPPLYING DOCKS, PUMPING SEWAGE, and GENERAL PUMPING PURPOSES.
HATHORN, DAVEY, AND CO.,
LEEDS.

HATHORN, DAVEY, and Co. have Patterns of "Differential" Engines of all sizes, from 5 to 500-horse power, and have facilities for supplying very powerful Engines and Pumps at a short notice.

MR. CHARLES THOMAS,
MINING AGENT, STOCK AND SHARE DEALER,
3, GREAT ST. HELEN'S, LONDON, E.C.

MR. ALFRED THOMAS,
MINING AGENT, AND STOCK AND SHARE DEALER,
10, COLEMAN STREET, LONDON, E.C.

Just published, post free 1s.,
SPARE CASH. What shall I do with it? A new work for the guidance of investors.
Published by ALFRED THOMAS, 10, Coleman street, London, E.C.
"Invaluable to those who cannot attend the markets."

HENRY GOULD SHARP,
21, THREADNEEDLE STREET, LONDON, E.C.
ESTABLISHED 1852.
Bankers—London and County Bank, Lombard-street, London, E.C.

MR. E. J. BARTLETT, STOCK AND SHARE DEALER
30, GREAT ST. HELENS, LONDON, E.C.
Selected List of Investments post free on application.

JOHN B. REYNOLDS, STOCK AND SHARE DEALER,
37, WALBROOK, LONDON, E.C.
Established Twenty-five Years.
BANKERS: LONDON JOINT-STOCK, Princes-street.

Mr. REYNOLDS transacts business in all descriptions of Mining Property at net prices. He is in a position to obtain reliable information respecting mining shares, and advises upon such information on the receipt of a fee of 21s.. He spares neither time nor expense in securing for his numerous correspondents opportunities for obtaining the best investments. Fee allowed if business results.
Mr. REYNOLDS calls attention to the fact of his having persistently recommended West Kitty shares ever since they stood at 20s. each, and that when they stood at 10l. he cautioned holders, and gave his opinion that they would reach £15 this year.
Mr. REYNOLDS's weekly communications are unavoidably postponed until next week.

ABBOTT AND CO., STOCK AND SHARE DEALERS, 9, CORNHILL, LONDON, E.C.

NOTES on the FORTHCOMING RISES in FOREIGN STOCKS, RAILWAYS, and MISCELLANEOUS SECURITIES.
See October Circular, containing special information of great value to Investors, Shareholders, &c., sent post free on application.
Special information on SILVER HILL and EAST WHEAL ROSE.
Full particulars, post free, of important mine now starting close to Old Shepherds and East Wheal Rose.

MR. ALEXANDER DAVIDSON,
STOCK AND SHARE DEALER,
LEADENHALL HOUSE, 101, LEADENHALL STREET, LONDON, E.C.
FOR SALE, or OFFERS CAN BE MADE for the following shares:—
* THESE ARE CHEAP SHARES, WORTH BUYING FOR A GOOD RISE.

*170 Almada.	*70 Herodsfoot, 4s.	30 Roman Gravels.
30 Bedford United.	40 Killifreth.	210 Sortridge.
*100 Bratsberg, £1 18s. 9d	Mounts Bay.	100 South-East Wynaad
75 Canada Gold, 9s.	*70 Orita Gold.	70 Tamar Silver-Lead.
20 Devon Great Consols.	Old Shepherds.	200 Tankerville.
200 Devon Friendship.	Organos.	Tresavean.
200 Drakewalls, 9s.	150 Parys Mountain.	20 Van.
*190 East Blue Hills.	*60 Phœnix United.	*100 West Crebor.
200 East Wheal Rose.	200 Prince of Wales.	40 West Crebor.
50 Gunnislake (Clitters).	40 Richmond.	150 West Devon.

There is likely to be a further considerable advance in Mining Shares during the year. Mr. DAVIDSON is in a position to advise intending investors.
SHARES WANTED.—200 West Crebor, 250 West Caradon, 100 La Plata.
N.B.—Sellers will please state number and lowest cash price.

MR. W. MARLBOROUGH, STOCK AND SHARE DEALER,
29, BISHOPSGATE STREET, LONDON, E.C. (Established 30 Years)
Can SELL the following SHARES at prices annexed:—

20 Bedford Unit., £2 3 9	10 Great Laxey, £18 8s 9	75 Prince of Wales, 10s
40 Bratsberg Cop., £2 2 6	20 Horn uchos, £5½.	80 Parys Corpora., 9s. 3
50 Bwlch United.	50 Herodsfoot.	10 Richmond, £8 13s. 9 1
75 Colombian Gold, 7s. 6	40 Indian Trevelyan, £⅝	25 Ruby, £2 6s. 3d.
50 Chile Gold, £1.	50 Kapanga, 16s. 3d.	30 South Devon, 17s. 6d.
150 Corporation of South Australian Copper, 21s. 3d.	25 Leadhills, £2 11s. 3d.	100 Sortridge Con., 7s.
	40 La Plata, £2 2s. 6d.	60 Tankerville, 6s. 9d.
	50 Mona Consols, 2Js.	50 Tresavean.
50 Dev. Friendship, 9s	40 Mounts Bay.	20 Tolima A.
30 East Blue Hills, 11s.	25 North Blue Hills, 4s.	90 West Crebor, 11s. 9d.
50 East Rose.	175 Nouveau Monde, 11s 6	25 West Lisburne, 16s 6d
40 Frontino, £2 17s. 6d.	50 New W. Caradon, 11s 9	40 West Devon, 12s. 6d.
25 Gunnislake (Clitters), £4 2s. 6d.	20 Organos Gold, £2 11 3	25 West Caradon, 28s. 9d
	30 Old Shepherds.	25 Wheal Crebor, £3½.
	25 Orita, fully pd., £1 6 3	

Shares in Home, Foreign, and Colonial mines, bought and sold at net market prices, free of commission.
Purchases for forward delivery at special prices on receipt of deposit of 20 per cent.
SPECIAL BUSINESS in Indian gold mines, also in rails, trams, Egypts, Ottoman Banks, Turks, and Lombards, for cash or account on receipt of usual cover.
BANKERS: ALLIANCE BANK (Limited).

ABBOTT, PAGE, AND CO.,
STOCKBROKERS,
42, POULTRY, LONDON, E.C.

The upward tendency of the Metal Market is causing the price of all good Home Mining Shares to rise rapidly.
WE RECOMMEND, amongst others, for an immediate large rise, the shares of—
EAST WHEAL ROSE.
TRESAVEAN.
MOUNT'S BAY.
OLD SHEPHERDS.
HOME MINES TRUST.
All fully paid.
SPECIAL.—We are prepared to give for the "CALL" of any of these shares for delivery, at any fixed time from two to twelve months, considerably higher prices than those now ruling.
We are Buyers for Cash or the account at the best market prices of the day.
Full descriptions in Mid-October Circular, now ready, and post free.

MR. JOHN L. M. FRASER,
GREENFIELDS, WREXHAM.
(Eighteen Years' experience at the Great Minera and other Mines.)
Consulting Mining Engineer, &c Reports, Valuations, Surveys.
MINING PLANT, MACHINERY, STORES, AND MATERIALS at greatly reduced prices.
SHAREHOLDERS' AND INVESTORS' PROTECTION AGENCY.
Full particulars on application.
OPTIONAL PURCHASE OF MINES.
WANTED, Investors to join in working BONA FIDE PROPERTIES on this system. Full particulars on application.

The Fish Supply Company (Limited).

Registered under the Companies Acts, 1862 to 1880, whereby the liability of each Shareholder is limited to the number of Shares subscribed for.

CAPITAL £30,000, IN 6000 SHARES OF £5 EACH.

FIRST ISSUE of 4000 SHARES, payable 10s. on application, £1 on allotment, and £1 on the 15th of November. The remainder in calls as may be required. No call to exceed £1, or to be made without a month's notice. Where preferred, Shares may be paid up in full on allotment, such payments to have the benefit of the full dividends.

DIRECTORS.

W. MOLESWORTH ST. AUBYN, Esq., M.P., Chairman, 1, Brick Court, Temple.
ARTHUR NASH, Sen., Esq., Botley House, Patshull Place, N.W.
JOHN PENBERTHY, Esq., Royal Veterinary College, N.W.
CHARLES ROUGHT, Esq., 23, Bridge Avenue, Hammersmith, W.
T. H. DENNIS ALLEN, Esq., Managing Director Devon and Cornwall Dairy Farm Company (Limited), 217, Camden Road, N.W.

MANAGER—Mr. DAN HOLLAND GIBBARD.
SOLICITORS—Messrs. WALKER, SON, and FIELD, 1, Gresham Buildings, Basinghall Street, E.C.
BANKERS—The LONDON AND SOUTH-WESTERN BANK (LIMITED), 7, Fenchurch Street, E.C.
AUDITORS—Messrs. SAMUEL J. BENNETT and CO., Chartered Accountants, 70 and 71, Bishopsgate Street Within, E.C.
SECRETARY—GEO. RICHARDSON, Esq.

TEMPORARY OFFICES—11, QUEEN VICTORIA STREET, E.C.

THE FISH SUPPLY COMPANY (LIMITED).

ABRIDGED PROSPECTUS.

This company is formed to meet one of the most urgent wants of the present time—the supply of all kinds of fresh, dried, and kippered fish, shell fish, &c., direct from the sea coast. Also ice, poultry, game, &c.

The directors have secured the six first-class businesses so well known and trading as the Fish Supply Company, as going concerns, and the report of Messrs. Bennett and Co., Chartered Accountants, show the net weekly profit of these shops to be £24, or £1248 per annum, over 35 per cent. on the purchase money—£1450 cash, and 400 shares. 25 shops *pro ratâ* would show £100 per week, or £5200 per annum, which figures, on a paid-up capital of £10,000, speak for themselves.

Some few months since, the question of fish supply was engaging the attention of the Legislature, and from facts and figures then elicited, it was proved that fish, and especially codfish, for which there is a great demand in London, could be bought at the coast for 1d. per lb., yet it was shown that within four hours of its arrival in London it was being retailed at 6d. per lb.

The company have important agencies in Cornwall, and at Grimsby, Dover, Great Yarmouth, &c., for the supply of fish direct from the coast, on terms far more advantageous than can be obtained at Billingsgate.

Prospectuses, with full particulars and forms of application for shares, can be obtained of the bankers, solicitors, or of the secretary, at the company's offices.

Registration of New Companies.

The following joint-stoccompanies have been duly registered—

NATIONAL PROVINCIAL INVESTMENT COMPANY (Limited).—Capital 20,000*l.*, in shares of 5*l.* The business of financial agents, dealers in stocks and shares, agents, &c. The subscribers (who take 20 shares each) are—F. J. Bliss, 20, Reddin's-road; F. Irvine, 44, Ballance-road; W. E. Vinson, 217, Camberwell-road; G. Marse, 23, Bouverie-street; G. P. Brotheridge, 8, Old Jewry; D. Saunders, 71, Lamb's Conduit-street; W. Irvine, 23, Villiers-street.

THE LONDON SYNDICATE FOR TRAMWAYS AND PUBLIC WORKS (Limited).—Capital 5000*l.*, in shares of 100*l.* To promote or establish any new companies for acquiring, constructing, or working tramways, railways, works, &c. The subscribers (who take one share each) are—C. M. Elborough, 51, Queen Victoria-street; D. B. Miller, Croydon; W. W. Feast, 27, Mincing-lane; E. Dean, 57, Queen Victoria-street; J. Thrift, Croydon; J. Clarke, 88, George-street; J. A. Draper, Croydon.

THE LIVERPOOL STOCK EXCHANGE BUILDINGS COMPANY (Limited).—Capital 100,000*l.*, in shares of 100*l.* To provide a house, rooms, or other accommodation and conveniences for the use of shareholders, and to furnish and maintain same. The subscribers (who take one share each) are—R. Withers, Liverpool; T. Irvine, Liverpool; W. Chambers, Liverpool; J. Lappin, Liverpool; T. Morris, Liverpool; A. Woods, Liverpool; R. Healey, Liverpool; J. P. Hargreaves, Liverpool; H. Lovatt, Liverpool; W. A. M. Poole, Liverpool.

THE OLD FALSTAFF CLUB (Limited).—Capital 50,000*l.*, in shares of 5*l.* The business of a club proprietor, restaurateur, &c. The subscribers (who take one share each) are—A. J. Campion, Crown-court; R. Ness, 30, Clarendon-road; E. H. Symons, Islington; T. Wilkinson, Barnes; G. H. Wheldon, 45, Greek-street; C. E. Reynolds, 2, Waldegrave-road; W. E. Campbell, 3 High-street.

MUNICIPAL HOUSE PROPERTY TRUST (Limited).—Capital 500,000*l.*, in shares of 10*l.* The business of a land company and building society in all branches. The subscribers (who take 10 shares each) are—W. H. Richards, 36, Mark-lane; E. Pulleyne, 16, Clareville Grove; J. G. Button-Browning, 51, Brook-street; Viscount Pollington, 8, John-street; G. Marshall, 53, King William-street; R. Richards, 42, Harley-street; C. A. Russ, 53, King William-street.

THE PIRINASEUS WATER COMPANY (Limited).—Capital 30,000*l.*, in shares of 10*l.* To acquire a concession, and undertake the supply of said town and district in Bavaria with water. The subscribers (who take one share each) are—A. H. Huth, 17, Kensington-square; A. B. Tugwell, 83, Harley-street; F. H. Anson, 56, Vincent-square; F. Walters, 12, Tokenhouse-yard; T. Sanders, 11, Delahey-street; M. W. B. Fallows, 26, Green-street; R. Huth, 3, St. James's-street; F. Walters, 12, Tokenhouse-yard.

THE JOKAI (ASSAM) TEA COMPANY (Limited).—Capital 30,000*l.*, in shares of 10*l.* To take over and carry on the business of a company in course of being wound-up. The subscribers (who take one share each) are—J. B. White, 36, Bury-street; J. Mackintosh, 5, Duke-street; C. Hudson, 14, St. Mary Axe; A. Laurie, 54, Highbury New Park; C. S. Bears, 3, Pall Mall; E. Wabat, 100, St. George's-square; H. M. White, Clonmel.

WHEAL CASTLE MINES (Limited).—Capital 50,000*l.*, in shares of 1*l.* To purchase or otherwise acquire lands, mines, and mineral properties, rights, and interests in lands, mines, &c., situate in Cornwall or elsewhere in England, for the purpose of fully developing these and carrying on the various operations of a mining and smelting company in all branches. The subscribers (who take one share each) are—A. Clegg, East Dulwich, book-keeper; A. Harvey, Tottenham, manager; J. Smith, Kensington, time-keeper; J. Hugliff, Islington, agent; W. J. Thomas, 81, Mildmay-park, correspondent; W. J. Twentyman, 264, Amherst-road, accountant; T. A. Cutliff, Forest-gate, secretary. The number of directors must not exceed six or be less than three. The following gentlemen compose the first board:—G. Forman, J. Knill, H. Boyns, and J. T. Browne. Future directors will have to qualify in 100 shares.

THE CITY OF ROCHESTER LAND AND GENERAL INVESTMENT COMPANY (Limited).—Capital 50,000*l.*, in shares of 5*l.* To acquire lands in the home counties, the erection of houses and buildings, and the selling, leasing, or otherwise disposing of same. The subscribers are:—J. Gouge, Rochester, 100; F. F. Belsey, Rochester, 200; C. Withecomb, Chatham, 100; F. J. Dawson, Rochester, 100; R. Fry, Strood, 100; G. Booth, Rochester, 100; J. O. Moore, Rochester, 100; G. W. Gill, Rochester, 100; A. F. Budden, Rochester, 100.

THE FRENCH ELECTRICAL POWER STORAGE COMPANY (Limited).—Capital 1,075,000*l.*, in shares of 12*l.* and 10*l.* To carry on in England and abroad the business of electricians, mechanical and chemical engineers, &c., in connection with certain patents. The subscribers (who take one share each) are—S. Philippare, 446, Strand; H. C. Gislain, 13, Percy-street; W. Bradley, Surbiton; E. J. Dowlen, 107, Isledon-road; A. Golden, 27, St. George's-road; F. A. Tincoffs, 5, Warnford-court; J. Burton, 25, Maddox-street.

THE MIDLAND, WESTERN, AND METROPOLITAN CANAL CARRYING COMPANY (Limited).—Capital 200,000*l.*, in shares of 5*l.* To provide increased facilities for the storage, warehousing, and distribution of merchandise between Bristol and London and the Western and Midland counties. The subscribers (who take one share each) are—J. Lysaght, Bristol; C. Hoskins, sen., Bristol; J. Dixon, Bristol; H. H. Goodeve, Bristol; H. White, Bristol; J. L. Press, Bristol; C. Nash, Bristol.

JOSEPH BULL, SONS, AND COMPANY (Limited).—Capital 100,000*l.*, in shares of 10*l.* To acquire and carry on at Southampton an established business of contractors for public works. The subscribers (who take one share each) are—E. C. Bull, Southampton; H. W. Bull, Southampton; R. Dewin, Southampton; J. W. Jennings, Southampton; P. Stewart, Southampton; A. S. Grosvenor, Southampton; F. Bull, Basset.

THE BENGAL AND NORTH-WESTERN RAILWAY COMPANY (Limited).—Capital 2,200,000*l.*, in shares of 10*l.* To construct, maintain, and work different branches in connection with main lines. The subscribers are—C. Baring, 8, Bishopsgate Within, 25,000; A. Rothschild, New Court, 25,000; D. J. Robertson, 41, Onslow Gardens, 1000; C. H. Dickens, 75, Lexham Gardens, 200; J. R. Bullen-Smith, Long Ditton, 100; G. Christian, Alresford, 200; J. S. Trevor, 75, Ladbrooke-road, 200; R. B. Chapman, 6, Knaresborough-road, 100.

JOHNSON'S COMPENSATOR COMPANY (Limited).—Capital 30,000*l.*, in shares of 20*l.* To purchase and work an apparatus for operating on signals, &c. The subscribers are—J. Harwarth, Southport, 100; S. Armitage, Pendleton, 100; M. J. Armitage, Pendleton, 100; H. Statham, Buxton, 50; J. B. Close, Eccles, 50; H. Morris, Eccles, 50; H. Johnson, Eccles, 10.

BLASTING WITH WATER CARTRIDGES.

An interesting paper on Blasting with Water Cartridges in combination with Inflammable Explosives was read before the North Staffordshire Institute of Mining and Mechanical Engineers at their last meeting by Mr. Macnab, who gave an account of the primary experiments with compressed air in combination with water and pneumatic cartridges, which led him to discover his system of blasting with water and water cartridges in combination with inflammable explosive agents. He referred to experiments in chalk and coal with water and water cartridges in combination with gunpowder, to test the practical arrangement of employing the same for the purpose of making them harmless, smokeless, and fumeless in fiery mines, including an improved method of igniting the explosive charged with safety spring detonators in lieu of the ordinary methods of firing. He then described a series of experiments in fiery and non-fiery mines to ascertain the most practical, safe, and efficient methods of employing gunpowder and other explosives in combination with water cartridges, including the best form and material of the same for efficient work with improved safety method of igniting the explosive charge in combination with fuse in lieu of electricity, or usual naked and unprotected methods of firing in subterranean workings, and also in open and submarine works. He next referred to the non-inflammable expanding or exploding agents and combinations in connection with water and other liquids or fluids, with special reference to carbonic acid gas, caustic lime, and similar slow expanding agents, and concluded with a review and comparison of the practical application of these systems, pointing out what he conceived to be the best and most efficient manner. He observed that there was a safety and non-safety limit even in using so-called non-inflammable expanding chemical agents or substances.

In using the combined water cartridge and explosive, the column of water, Mr. Macnab explained, received the force of the explosion, which, acting instantly like a wedge, distributed the pressure on all sides over its whole length, thus catching, storing, and transmitting the force in an instant. The liberated water instantly and simultaneously expanded laterally with the full force of the explosion, forming a natural and independent tamping to the gases, keeping them to their work and reducing to a minimum the pressure on the front tamping and thus presenting an effectual check to blown-out shots. The water destroyed the flame in its birth and prevented its spreading to the combustible gases and coaldust floating in the atmosphere. By merely varying the length and diameter of the hydraulic cartridge they could distribute the force over any practicable surface or extent they wished. With regard to caustic lime, although Sebastian Smith and Co.'s experiments had been successful in compact coal and with a good roof at Shipley it was a bold and premature statement that had been made respecting it—"it is anticipated that it will supersede powder." Before employing non-inflammable chemical agents for production of expanding pressure power they must consider their properties, the natural laws which governed them, and the principles involved in their action, especially when employed for breaking down coal or rock in practice, with a view to absolute safety, for if they did not have absolute safety they would have still to depend entirely on inflammable explosives. As a rule, these non-inflammable agents or substances were all naturally comparatively slow in their non-expanding action, and should they desire to go to the other extreme, and induce great rapidity of action, by enormously increasing their chemical and mechanical energy abruptly, an immense violent velocity and friction would be generated, resulting in sparks and flame, and as dangerous as powder or other explosives.

No matter what they did this latent heat was always developing itself in a greater or less quantity, and their object must, therefore, be to reduce this dangerous friction, and keep it within the limits of safety. The superheated vapour of lime was evidently very dangerous, and lime cartridges should not be kept in a powder magazine unless kept in a waterproof case. Generally the non-inflammable chemicals or substances were subject to the same frictional energy as the non-inflammable metals, and could realise the same results—sparks and flame, with very few exceptions, and under certain circumstances, so that they must not lose sight of these facts in their search for instantaneous action for blowing down coal or rock. They must confine their slow expanding energy in a sufficiently strong metallic tube or cylindrical chamber when using carbonic acid gas or other non-inflammable expanding combination, including even compressed air, which was a fair illustration of his method of creating an instantaneous and violent velocity of pressure power without incurring the danger he had referred to.

This could be affected by abruptly opening the valve or plug of a cylinder or chambered tube charged with a non-inflammable gas or vapours, after it had obtained its maximum pressure, or arranging the plug to automatically release itself; or, on the other hand, hermetically close the cylinder or tube after depositing the gaseous chemicals, and allowing it to be exploded, as in the case of the pneumatic air cartridge, and thus blow down the coal, but under any circumstances even in this method it was essential for perfect safety to use water or a water cartridge in combination in front of the cylinder, or with water in the interior of the tube to extinguish any sparks or flame that might be accidentally generated by the abrupt violent velocity of the bursting metallic case, the fragments of which might come in contact with each other, or with the rock or hard grit of the coal seam. He hoped to bring before them a cartridge of that discription on some future occasion, not having at present quite completed his experiments and calculations for the most practical and efficient use of it. Caustic lime had been used a century ago, and its use was revived in Wales four years ago, but it was abandoned as too slow and unreliable. Caustic lime might be used in some places, but it never could be relied upon to do the general work of a coal pit. After some remarks on the dangers attending wedging, he submitted that he had solved the problem of safety mining in gaseous coal pits as nearly as it was possible, and that the water cartridge was the best remedy that had yet been devised for preventing explosions.

In the course of the discussion which followed the reading of the paper, Mr. Settle questioned some of the conclusions to which Mr. Macnab had arrived with regard to the water cartridge. He had as fiery a mine as anybody, and he was willing to expend some money in experimenting and trying the cartridge to its full extent. He would find Mr. Nacnab a mine either in Staffordshire or Lancashire for the experiments.—Mr. Macnab said he should be confident as to the results.—The Chairman said there was nothing like having experiments in coal in their own neighbourhood. There appeared to him to be danger at the back of the charge.—Mr. Settle said he was sure there was danger.—Mr. Macnab said the great point was to prevent the flame coming out to the roadway. He did not believe in surrounding an explosive.—Mr. Settle said he was anxious to see improvements in the direction indicated by Mr. Macnab.—It was then understood that in a short time experiments would be made by Mr. Macnab in the Leycett Colliery. A vote of thanks was accorded to Mr. Macnab for his paper.

NEW MOTIVE APPARATUS.

As an intermediate motor to communicate the energy of a falling weight in a steady and uniform manner to any machine or mechanism to which it is suitable, Mr. J. I. CASO, of Paris, uses a device, which consists essentially of a weight suspended by a chain or rope from a drum, upon which the said chain or rope may be wound, raising with it the weight by means of a suitable crank or wheel attached to the drum axle, the drum being rotated by hand or other irregular source of power, and being retained in position by a ratchet wheel and pawl. The weight is thus raised to a position for giving back its falling energy to any mechanism in a perfectly steady and uniform manner. The intermediate mechanism consists of any suitable trains of wheels by which the speed of the machine, such as a serving machine, may be driven at a much higher speed than the weight drum. An air fan or fans revolving in opposite directions may as regulators be connected to and driven by any suitable part of the train of wheels.

The apparatus is sometimes modified in order to adapt it for special purposes. The weight may be suspended on a riding pulley in the loop of the chain or rope, and a counter-balance, but smaller weight may be used riding in another loop of the same chain or rope, to maintain its tension over the winding and driven drums or axles. by this arrangement of a loop, in which the weight is placed, the motor weight may be raised conveniently by hauling up one side of the loop, whilst the driving pressure is constantly maintained upon the other side. The driven drum may conveniently be arranged close to the winding axle or drum, or at any distance from it, the driving rope or chain being easily diverted in any required direction by means of suitable guide pulleys. Where the motor weight as thus modified is applied with the already described train of wheels to the driving of any machine, such as a serving machine, the ratchet wheel on the winding axle, or axle adjacent, may be dispensed with. The whole may be conveniently encased in panels or otherwise, so as to present the appearance of a piece of furniture, and the weight may be hollow or changeable in order to regulate the speed and power.

PHOSPHOR BRONZE.—Among the exhibits at the North-East Coast Exhibition, at Tynemouth, was a pair of phosphor bronze slide-valves, the certified life of which will even increase the reputation of the alloy. The valves were just taken out of No. 845 express engine of the North-Eastern Railway Company, after six and a half years' working, during which the engine has run 261,182 miles, from Newcastle to Edinburgh, and *vice versa*. They have now been taken out to replace the cylinders with a pair of a different type. Mr. Fletcher, assistant locomotive superintendent, writes concerning them and another pair still at work in No. 844 express engine:—"Enclosed I hand you mileage of engines 844 and 845, with phosphor-bronze slides, those of 845 being now worn down to the thickness we generally take out gun metal slides. Had it not been that we were putting in a pair of cylinders of a different type, I should certainly have let them run longer, as I consider them quite safe, taking into consideration the great superiority of phosphor-bronze over gun metal. No. 844 engine slides will run for a long time yet. Mileage of 845 engine with phosphor-bronze slides, from March 30, 1876, to present time, 261,182 miles. Mileage of 844 engine with phosphor-bronze slides, from April 20, 1876, to present time, 236,229 miles. The original thickness of these slides was 1 in., and they are worn down to $\frac{3}{8}$ in. thick. Gun metal slides rarely exceed eight months' work, when they are worn out. The cylinder faces are in beautiful condition, the wearing being, as it should be, on the valves. The engines Nos. 844 and 845 are of the following dimensions:—Cylinders 17 in. diameter by 24 in. stroke. Four coupled wheels, 7 ft. diameter, working pressure 140 lbs. per square inch. Weight of engine in working trim 39 tons 16 cwts. Weight of tender 26 tons 4 cwts. At a fair estimate, from the present condition of the slides, they are capable of from three to three and a-half years' further work.

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Of the MOST APPROVED AMERICAN PATTERNS.

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We have over 900 stamps in successful work in the various Western Gold Districts.

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Silver amalgamation in Pans is essentially an American system evolved after years of work on the rich silver mines of Nevada.

We have over 500 Stamps, with necessary pans, settlers, roasting furnaces, &c., all of our own manufacture, at work in different silver camps of the United States, Mexico, and South America, and Phillipine Islands, Asia,

CONCENTRATION MILLS

Of the most approved German pattern and arrangement, or with Stamps and Frue Vanner Concentrators for low grade silver ores, light in lead. We have over 20 large German pattern mills at work on lead, zinc, or copper ores, and numerous Vanner mills on ores never before successfully concentrated.

Mining Pumps, Cornish pattern, of the largest sizes, **Hoisting Engines** from 4 h.p. up to the largest direct-acting engines to sink 3000 feet.

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We have 80 Water Jacket Smelting Furnaces in use from 20 in. circular up to 54 in. by 60 in. for lead and silver smelting; and special High Jacket Furnaces for copper ores.

Engines of any size, plain slide valve, Corliss, compound Corliss. Boilers, all sizes. **Leaching Mills, Hallidie Wire Rope Tramways Comet Crusher,** with capacity of 12 to 20 tons per hour. **White, Howell, Bruckner, and Stetefeldt Roasting Furnaces, &c.**

We have had twenty years' experience in the manufacture solely of MINING MACHINERY, and have special facilities for shipping to all foreign parts through our New York Office, where all details of clearance, shipment, and insurace are conducted. Our machinery is already well known in Mexico, Peru, Chili, Venezuela, Honduras, and other South American countries.

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TRANSMISSION OF POWER BY ENDLESS BELTS.

In connection with the transmission of power from one revolving drum or other like revolving object to another by methods somewhat resembling but different from those of multiple endless ropes connecting multiple grooved drums at present commonly in use, some improvements have been invented by Dr. JAMES THOMSON, Professor of Civil Engineering and Mechanics in the University of Glasgow. Instead of having the tensile line of rope, cord, or other elongated tensile material, which for brevity he calls the string, merely to lap round part of the circumference of a groove in one drum, and part of the circumference of a groove in the other drum in its entire circuit, the string in a circuit along itself from any point of itself round to the same again is made to lap alternately round part of the circumference of a groove in one drum, and part of the circumference of a groove in the other drum, this alternation being repeated several times. One way for carrying out this part of the invention is to conduct the string from a starting point, say, on groove 1, of drum A to groove 2 of drum B; thence to groove 3 of drum A; thence to groove 4 of B; thence to groove 5 of A, and so on, leaving alternate grooves occupied and vacant till a sufficient number of them have been passed by the string coiling round while advancing in one way here intended to be designated as forward in respect to the axes of rotation of the drums, and thence to conduct the string gradually back to the starting point by coiling alternately from groove of one drum to groove of the other drum these grooves being those that were left vacant during the coiling with the forward advance in respect to the axes of rotation of the drums. The string in closing its circuit at the starting point is continuously in tensile union with its continuation past that point. Other varieties of arrangements for leading the circuit back to its closing at the point referred to as the starting point are possible, but the one here particularised is simple and good.

For helping to maintain a proper tightness of the string, the string may be led aside by one or more pulleys or drums, adjustable, so as to take up the slack; and in some cases such additional pulleys may be used for leading back the string in circuit to a starting point without the method already mentioned of leading it back by grooves left vacant in the advance coiling part of the circuit. Another part of the invention consists in using anti-friction wheels or rollers resembling those well known in Attwood's machine in connection with the multiply-coiled circuit of string, the use of the rollers being to abate the loss of power in axle or journal friction liable to be caused through the pull of the multiple lines of string. Another part of the invention consists in using for the multiply-coiled band, steel wire or other metallic wire, spliced so as to close the circuit. And another part of the invention consists in using a continuous circuit of wire manufactured as an endless ring without requiring a splice or other special junction to close the circuit.

GOLD MINING IN NEW ZEALAND—THE KAPANGA MINE.—The shareholders may be congratulated upon the satisfactory progress now being made at their mines. The subjoined extract from the New Zealand Herald is highly gratifying, and the details given are the more important as private advices state that the specimens referred to yield "2 ozs. of gold per 1 lb. weight of stone:"—Captain Thomas, the manager of the Kapanga Gold Mine, Coromandel, arrived in town on Tuesday, bringing with him 30 lbs. of specimen quartz, which he intends sending home by the next outgoing Australian mail, for the purpose of showing the shareholders there the rich character of the stone found in the company's property at Coromandel. Some Auckland gentlemen interested in the New Zealand mines expressed a wish to see some of the stone, and Capt. Thomas has placed his specimens in Messrs. Frater Brothers' (stockbrokers, Insurance Buildings) hands, for the purpose of exhibiting them for a couple of days. During yesterday the magnificent specimens were examined by many interested in gold mining, and those best able to judge expressed their opinion that a very bright future is in store for this enterprising company. We learn from Capt. Thomas that the specimens have been struck at a depth of 300 feet from the surface, on a new reef lately acquired by the company, known as Scotty's Reef. This English company has been for the last ten years in existence, and the success which they now appear to have achieved is certainly deserving.

Meetings of Public Companies.

TANKERVILLE GREAT CONSOLS COMPANY.

An extraordinary general meeting of shareholders was held at the offices, Austin Friars, on Wednesday,

Mr. PETER WATSON in the chair,

For the purpose of confirming the special resolutions passed at the extraordinary general meeting held on the mine on Oct. 4, authorising the increase of the capital by the issue of 27,500 preference shares of 1*l.* each, to be entitled to a cumulative preferential dividend of 10 per cent. per annum.

The SECRETARY read the notice calling the meeting.

The CHAIRMAN said they were met for the purpose of confirming the special resolutions which were unanimously passed at the special meeting, held on the mine on Oct. 4, for the purpose of increasing the capital of the company from 110,000*l.* to 137,500*l.*, by the issue of 27,500 preference shares, 1*l.* per share, bearing a cumulative preferential dividend of 10 per cent., 5*s.* of which was to be called on application and 5*s.* on allotment. He would formally move:—"That the following resolutions, passed unanimously at the extraordinary general meeting of the said company, duly convened and held at the account-house of the Tankerville Mine, near Minsterley, Salop, on Wednesday, Oct. 4, be and they are hereby confirmed:"—

1. That the capital of the company be increased from 110,000*l.* to 137,500*l.*, by the issue of 27,500 preference shares of 1*l.* each, such preference shares to be entitled to a cumulative preferential dividend of 10 per cent. per annum on the amounts paid thereon out of the profits available for distribution, and to participate rateably in proportion to the amount paid thereon with the holders of the ordinary shares in any surplus of such profits which may remain after the payment of the said 10 per cent. to the preference shareholders, and that in the event of the company being wound up the holders of the said preference shares shall be entitled to have the surplus assets and property of the company applied in the first place in repayment to them of the amounts paid on the preference shares, and the cumulative dividend (if any) remaining unpaid thereon, and that the residue of any such surplus assets and property shall belong to the other members of the company.—2. That the said preference shares shall be offered in the first instance *pro rata* to the existing shareholders—1 for 4 of their present holding, and that if any of such preference shares be not so taken, then the same shall be dealt with by the directors in such manner and on such terms as they may think fit.—3. That in respect of the said preference shares 5*s.* per share be paid on application, 5*s.* on allotment, and the remainder, if required, in instalments of 2*s.* 6*d.* each, at intervals of not less than three months.

He moved that those resolutions be confirmed.——Mr. G. JAMES WAGSTAFFE seconded the motion, which was carried unanimously.

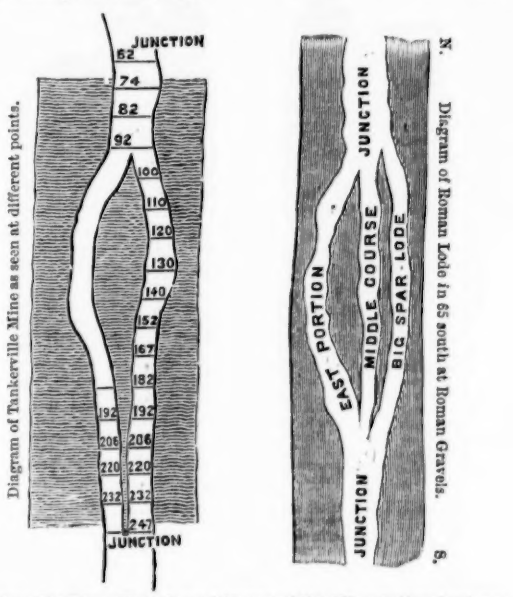
The CHAIRMAN said: Gentlemen, that concludes the business of the day, which we are called together to transact; but I have to tell you that those resolutions received the unanimous approval of the shareholders at the meeting held on the mine. I may also tell you that we have proxies from the best part of 200 shareholders, some of whom are very large shareholders indeed, and they are all unanimous in their approval of these resolutions. I have asked the secretary to-day if there be anyone against it, and I am happy to tell you that there is no opposition in any shape or form from any of the shareholders. (Hear, hear.) In fact, I do not see how there possibly could be. We want 27,500*l.* increase of capital. We possess, as the shareholders who have visited the mines must have seen, a very large undertaking. It is not one mine, but a series of gigantic undertakings as to lead mines. Therefore, we want capital to develope it. Although I hope and believe that at present we shall not require the whole 27,500*l.* for a long time, at the same time we shall require half of it to pay off the amount stated in the balance-sheet, and to provide capital for additional machinery, as will be shown to you in Capt. Waters's excellent report which will be read to you to-day. Certain machinery is required, which will come out of capital account as well as the sinking of three or four shafts. The Pennerley shaft has not been sunk for many years, nevertheless a large amount of ore has been raised there. I do not fear the result of further expenditure. After Capt. Waters's report has been read I will make one or two further observations, but I may here call your attention to the ore from the Potter's Pit, part of the mines of Pennerley, and point out the extraordinary remark which Capt. Waters made on the mine only, comparatively speaking, a few days ago with respect to Potter's Pit. He said:—"We shall in this shaft have the junction of Pennerley with Potter's Pit, and then possess one of the biggest mines in the country. There are two strong lodes in hard ground standing between Potter's Pit and Bog, and yet the water comes up from one mine to the other for more than a mile. When we fought our way down through that dangerous shaft at Potter's Pit we were disappointed that we did not get down sooner, but after all we reached the bottom before the water had been drained. The next day the water had gone, and we thought our way was clear. The day after, however, having to stop the Bog engine, the water came up to Potter's Pit, giving a fresh proof of the connection between that mine and the Bog." But now comes the important point in Capt. Waters's remarks; he says:—"It will be wonderful indeed should this water pass through the two veins unless there is something valuable in the bottom to be got out. In the bottom of Bog there is a run of ore 45 fms. in length. Since then we have come upon a large deposit of ore, some specimens of which are now in the office, and finer stuff could not be found in any mine in Shropshire; and, looking at the heat which is coming from that part, all points to the fact that we may expect something good there, and that if we go down we shall have as big a mine as there is in Shropshire. I have known the impression held regarding the Potter's Pit for 25 years by old Mr. Jones, who used to come to our office and say that Potter's Pit would be the deepest lead mine in the county." It really looks as if we are now on the top of something very great, and I congratulate the shareholders upon this particular portion of the property. As far as Tankerville is concerned it is going on satisfactorily. As regards the Bog Mine, since the meeting we have had two or three mishaps there, but I am glad to say that we have surmounted those difficulties and the water is now out of the mine. (Hear, hear.) I will now ask the secretary to read Capt. Waters's last report:—

Oct. 24.—Having so recently submitted a long report, which was considered to be full and exhaustive, we shall, in the remarks we have to lay before you at the meeting to-morrow, confine ourselves to a succinct description of the present condition and future prospects of the four mines now under development by the company.—Tankerville Proper: Watson's engine-shaft is in first-rate working order from surface to the 232, which is the bottom level. The shaftmen are now engaged about work preliminary to deepening the pit and working our way to a 247 fm. level, and thence to the junction of the main lode with north lode, to reach which (as far as we can now judge) about 27 fms. from the present bottom of the mine will have to be sunk. To sink the full distance, cut plat, &c., at the 247, and drive on each lode at that depth out of the way of shaftmen, would take about 18 months by hand labour. If rock drills are adopted, far greater speed will be obtained, and as we have fully discussed such a mode of working against that by hand labour, verbally and by letters with the managing director, we only await an order from the meeting to-morrow to go on with the programme. There is ample engine and boiler power at work to drive a pair of compressors, hence the cost of the latter with receiver air-pipes, and (say) six drills would not be a large amount.—Main Lode: The 232, west of Watson's cross-cut, is in a lode 5 ft. wide; nice-looking white calcspar and stones of ore. This end is nearly forth to the dip of the ore seen in the winze below the 220 west, and we are expecting an improvement in the lode daily. The 232 is opening out a strong orey lode, and the end shows indications of being near to the cavity and run of ore seen in the upper level, and which we followed continuously from the 180 to the 220. Our principal returns come from this run for a long time. The winze below the 220 west shows a lode 5 ft. wide, worth 30 cwts. of lead ore per fathom. The stope in the back of this level west is worth 25 cwts. per fathom.—North Lode: The 232, west of Watson's engine-shaft, is in a lode 6 ft. wide; white calcspar, with bright soft galena mixed; worth 25 cwts. per fathom. The end is now within about 3½ fms. of the line of the winze coming from the 220. The 232, east of shaft, is at present twitched up, but the best run of ore yet seen on this lode is along the back and bottom of the 220, east of the above end; hence, by going forward here we shall catch the dip of the ore in due course. The 220 stope, east of shaft, working by 10 men, shows a strong fine looking lode, worth in places 2 tons per fathom, but for whole length 30 cwts. per fathom. The winze in the 220 west is down 3½ fms. (and as stated above, is 3½ fms. in front of the 232 end) shows a strong calcspar lode; worth quite 2 tons of lead ore per fathom. This winze through to the bottom level, good stoping ground would be available. The winze in the 206 (down 4 fms.) is also opening up a strong sparry lode charged with soft galena; worth at present 35 cwts. per fathom. The stope in the back of the 192 west is worth 30 cwts. per fm; working by 10 men.—South Lode: The 100, east of cross-cut, is worth 20 cwts. of lead ore per fm.; going away into new ground. There are in addition to the foregoing five pitches in different levels, worth together 3½ tons per fathom.

Pennerley Mine Proper: The 120 west, on Warm Water vein, is driven to the junction of the shale. The men are moving east of the cross-cut on a lode 1 ft. wide, yielding stones of ore. We calculate upon meeting with productive ground in this direction, for should the ore seen in paying quantities in back and bottom of the 80 come down to the 120, and it surely will, we shall find it to the east of the present end. The stope in the back of the 120, west of cross-cut, is worth 30 cwts. per fathom. The 80, west of old cross-cut, is worth 30 cwts. per fathom. The two stopes in the bottom of this level are worth together 4¼ tons per fm. The stope in the back of the level is worth 25 cwts. per fathom.—Big Ore Vein: The 80 east is now getting near the point where it was calculated the west end of Bland's run of ore would be met with, and it is very cheering to see the lode widen and improve as it does the nearer we get to the shaft. We hope in a month or two from now to commence rising in the 80, against Bland's, and so make this end of the mine add to the general output of the works. We have seen courses of ore at and adjoining this shaft varying in value from 4 up to 10 and 15 tons per fathom, and do not see why other good runs, or a continuation of the same deposits, may not be cut into between the present 80 end and Potter's Pit. The six pitches in different levels here are worth together 4½ tons of lead ore per fathom.—Potter's Pit: The deepest workings here are 8½ fms. below the 105, and grand rocks and stones of various sizes, most of them solid ore, can be seen along the bottom in soft ground. This deposit carries two defined walls, which are running south 40° west, whereas the runs of ore seen in the old workings from the 105 to Boat level had a bearing nearly east and west. It will, therefore, be seen that the present rich deposit is an entirely new feature in Potter's Pit Mine, and as the greatest heat comes from what we consider to be the new lode our main force will be concentrated in the developing of it lengthways and in depth, believing that great things are in store for the company under our feet here. A drift south of the bottom winze, 8½ fms. below the 105, is put out 9 fms., and from this a box of ore taken out to-day will be sent by rail to-night for your inspection at the London offices of the company. With adequate winding power the ore ground could be opened rapidly, and large returns made therefrom, but at present, having to draw the whole of the orestuff and deads up winzes to the 91 by manual labour, it will be impossible to do more than 15 to 20 tons per week. Potter's Pit (the ore having dipped west so fast) is only available to the 91, and what we require for working the mine profitably below that depth is the erection of a machine to wind with compressed air, a system which is common in the iron mines in Lancashire and elsewhere, and which would meet our difficulty here. This being such a vital question to the company we have discussed it in advance of the meeting with Mr. Peter Watson, and he has promised to lay our views before you to-morrow. The present new engine will do all the winding from the 91 to surface, and supply all the motive-power required for driving compressor and the little air winding-machines underground, so that no formidable expense will be required to carry out all we need here under the head in question. If means are available we should also lay down a tramroad from Potter's Pit to the Pennerley crusher and floors to dispatch the orestuff faster and cheaper than by cart as now.

Bog Mine: The water is now 10 fms. 1 ft. 6 in. below the 163, the roof of the 175 plat being visible for the third time. We are now draining the water from the bottom level. The pitch in the 163 west, on middle lode, is worth ¾ ton of lead ore and a little blende per fathom. Three pitches in the 148 west are together worth 3 tons blende per fathom. Two pitches in the 130, east of shaft, are worth together 2½ tons of blende per fathom. Pitch in the 100, east of shaft, is worth ¾ ton of lead ore and 1 ton of blende per fathom. Four pitches in the 100, east of Bunting's shaft, are together worth 5 tons of blende per fathom. Pitch in bottom of the 22, east of said shaft, is worth 25 cwts. of blende with some stones of lead ore per fathom. No change of consequence in Boat level east into the hill ground for some time past. In a soft ground mine like the Bog one crusher, and especially the present old-fashioned one, is not enough to meet our requirements, and we hope to get orders to carry out the necessary additions and improvements in the dressing-floors. The present output of blendestuff keeps the floors full for want of crushing power, and unless something is done to remedy this at once when we get into the lead ore ground in the bottom of the mine we shall be in still greater difficulties as to cleaning the ores and making them marketable. About 300*l.* would pay for all we require on the foregoing heads. Some alterations should be made, too, in the present arrangements for connecting the three boilers attached to the pumping-engine, and which also supply steam to the capstan and one of the winding-engines. There are no stop-cocks or nozzles between the boilers, hence to blow off steam from one for repairs at any time we blow off from the others also, causing all three engines to be idle. This can be rectified after the mine is drained to the bottom, and things put straight there.

Concluding Remarks: With the main lode and north lode opened up by the drivages, winzes, &c., above mentioned, to the 232, Watson's shaft down to the 247, levels driven and winzes sunk to cut up the lodes for stoping at that depth, we believe that a good and profitable mine will then once more be ours. And when the junction of the lodes be reached, and we find what it is reasonable to expect—a run of ore equal in value to that met with in the 42, and lasted to the 142 in the late company's time, our position will be all that we could desire. We would remark here in parenthesis that we talk of two lodes—main lode and north lode—because two great divisions of sparry orey matter can be seen travelling some 4 to 5 fms. apart in the 192, 206, 220, and 230, but we are not sure that these are not in junction in the 62 and 74 fm. levels, and at the very points where Tankerville great deposit of ore was successively cut into by cross-cuts from the "old lode." If this be no conjecture—we believe it is not—the logical sequence is that lodes not only split in line of their bearing (direction), but in depth also, and we shall find at the deep junction, which we have been considering one great trunk or lode charged with ore in such quantities as will make old Tankerville more famous than ever. The annexed diagrams will throw light upon our meaning in the foregoing:—



Pennerley: The Warm Water is not laid open at the 120, or bottom level, nor is the Big Ore vein developed much. The shaft has not been deepened for more than 30 years past, but with means we should deepen the mine, extend and increase the number of levels east and west, the main trial being pushing east in the 130 with rock-drill towards Potter's Pit.—Potter's Pit: This portion is we think a certainty, and nothing is wanting to get good returns but the new winding gear recommended.—Bog: We shall get to the bottom of this mine by the end of this week all going well. With all the mines in order we cannot see what there is to prevent our having a successful future.—A. WATERS AND SON.

P.S.—We have written more than it was our intention to do at the commencement, but the mines being so extensive, and so many points being involved as to what should be done in the development of them, must be our excuse for this lengthy report.—A. W. AND SON.

The CHAIRMAN continued—Now, gentlemen, I think you will agree that this is a very satisfactory report. There is no doubt that frequently in driving levels we come across what, in mining phraseology, is sometimes called a "belly," or, as others call it, an "elbow"—that is, in driving, but here is a matter of sinking. You will see the form (pointing to a section) it takes. Here is the junction of the 40, and we went to the 140 from the original end, and in all probability they diverged off, and will come together again in depth; they are coming together, and at 27 fms. deeper we shall have a deposit of ore such, perhaps, as has never been seen in Tankerville Mine. (Hear, hear.) I may be wrong, but in 99 cases out of every 100, when a junction of two valuable lodes takes place, they make a most valuable lode, and if it keeps on as now we shall have a very rich deposit of lead. (Hear, hear.) I may say that I have increased my holding very considerably, and I now hold 4000 to 5000 shares altogether; and I may say that I shall take my proportion of the new shares, and shall give my cheque for my proportion of the money to-day, because, as the resolution has been confirmed, I shall be justified in giving the company the benefit of my proportion of the money. (Hear, hear.) And if the shareholders do not take their proportion of the shares, I shall take something more. But I would speak to every shareholder individually as if he were here, and I would say earnestly that I hope every shareholder, inasmuch as these resolutions have been unanimously approved, and if any shareholder has not sent in his proxy, no one has opposed, and "silence gives consent," and there is no opposition from any individual shareholder, and it is a source of satisfaction to me and to the board of directors to think that we have the confidence of all the shareholders in this matter—I say I hope that every individual shareholder will take up his proportion of shares. Of course, I know there may be a few executors or trustees who will not or cannot take up their proportion; and, therefore, in the circular which the board are going to authorise the secretary to at once send out, we shall insert a paragraph to the effect that those who are shareholders who are desirous of taking more than their proportion of the shares can send in their application for an increased number, and any shares not taken up in the first instance will be allotted rateably amongst those who wish to take more than their proportion. (Hear, hear.) With respect to this mine, we have had a very wonderful discovery since we were at the mine, and Capt. Waters assures me that there is a very brilliant future before us with respect to Potter's Pit. We shall be able to at once, I hope, when we get the new machinery at work (which the directors will take into consideration to-day), and when we get the compressor and belting we shall get it to work in a very short time, and we shall be able to pay our way at Pennerley almost immediately. With respect to Tankerville, our improved prospects there are such as you heard from Capt. Waters and Capt. Smithers, and I think we can see our way pretty well to pay our way there also. We have got, as Capt. Waters says, for the third and last time to the bottom of Bog, and I hope we shall have no more breakages; and, having got to the bottom of Bog, we shall proceed with the sinking of the shaft under the original course of ore, and we shall have valuable reserves there—much more valuable than the capital which we are asking the shareholders to put their hands in their pockets to find. There will be a very large amount of ore ground standing there. What we want capital for is to sink three or four shafts, and we want some machinery at surface; and when we meet the shareholders twelve months hence on the mine, I think no shareholder will regret having taken his proportion of preference shares. (Hear, hear.) And, moreover, we hope that he will not only be paid his interest for the year on the preference shares, but that also they will get something in addition on the ordinary shares, because 10 per cent. on 27,500*l.* is only 2750*l.* I hope when the mine gets into working order we shall easily pay that and something more. As Mr. Bentley said—"It will be nothing." I cannot follow him exactly in all matters, but he has known the mines for 10 or 11 years, and he hopes, and he has reason to hope, that we shall have larger returns in this mine than any other mine in Shropshire, or even in this country. (Hear, hear.) I believe we shall. That is my candid and honest opinion. At the same time we cannot speak of what may take place. At any rate we are speaking now of what is taking place. We have one of the richest mines to be seen in Shropshire, and I hope we shall have good results to report to you 12 months hence. (Cheers.) Gentlemen, there is no more business, and I have to thank you for your attendance as well as the shareholders who have sent us their proxies.

Mr. WAGSTAFFE said he supposed that at Potter's Pit they were going into virgin ground.

The CHAIRMAN said it was virgin ground. It had always been predicted that

there was something valuable in Potter's Pit. He added—I was never more pleased with the property than to-day; I am as well pleased as if it was a dividend meeting. I think we have a very great future before us. (Hear, hear.) I can only say that if shareholders will give their shares away at the present ridiculously low price if they will apply to me I will give them the present market price for as many as they like to sell. (Hear, hear.) The Tankerville property alone was selling at one time in market value at something like 300,000*l.*, and this mine with the Bog and Pennerley were once selling at between 400,000*l.* and 500,000*l.* If any shareholder went to Shrewsbury he recommended them to communicate with Capt. Waters, who would take him to the mines, and show him over the properties.

On the motion of Col. CORMACK, seconded by Mr. WAGSTAFFE, a vote of thanks was passed to the directors, and a special vote to the Chairman for the interesting account he had given of the mine.

The CHAIRMAN acknowledged the compliment, and the meeting broke up.

SCOTTISH-AUSTRALIAN MINING COMPANY.

The half-yearly general meeting was held at the Cannon-street Hotel, yesterday,

Mr. A. W. YOUNG (the Chairman of the company) in the chair.

The CHAIRMAN, in moving the adoption of the report, extracts from which were given in last week's Journal, stated that the half-year, of which the operations are now before the shareholders, is the first which has passed since the agreement amongst the colliery owners of the Newcastle district, referred to at the last meeting, has been in operation. Althoughthe experience of its working is, therefore, short, at present it appears to have been satisfactory. The price was fixed at a moderate rate, 10s. a ton, and no restriction was put by the agreement on the total quantity to be sold, its principal object being to adjust fairly the proportions of the total vend amongst the various collieries according to their powers of production. Thus the agreement has not operated in any way to restrain trade, and quite as much coal has been sold by the Newcastle collieries at 10s. a ton as they sold in the corresponding six months of 1881 at 8s. and 7s. This has been the case although one of the large collieries, that of the Australian Agricultural Company, has been idle, through a strike, during four months of the half-year. There has been a good demand for coal during the whole six months, and the harbour of Newcastle has been very full of shipping to take Australian coal to India, China, and the West Coast of America. The price has been maintained at 10s., and, while there have been occasions when a pressure for coal might have supported a slight rise, the manager has considered it best, on the whole, to adhere to the 10s. throughout the half-year, and to do a steady trade at that figure. Up to the latest written advices the price had not been changed, and it will probably not be altered during the current year. Telegraphic information, however, has reached me since the latest letters were received the day before yesterday to the effect that the price of coal had been raised by 1s. a ton for 1883. There is every reason to believe that this information is correct, although a telegram from this company's manager on the subject has not yet reached the board.

A comparison of the working of the past half-year with that of the corresponding period of 1881 gives a very satisfactory result, which may be seen from the report. At the date of the manager's latest advices (Sept. 9) trade continued brisk. The Lambton sales for July were 20,552 tons, and August 23,290 tons—a very good beginning for the half-year now current. Turning from the company's coal properties, the working of which has always been the main source of its income, it is satisfactory to observe that recent reports from Capt. Holman, who has charge of the Cadia property, and works it tentatively under a short agreement with this company, seems to indicate more and more decidedly that the belief long entertained that it was likely to turn out a valuable auriferous property has a good foundation. The reports have been printed and sent to every shareholder. What has been doing during the half-year, when not prevented by want of water, has been to sluice away the alluvial soil and a kind of cement underlying it, in order to arrive at the gold expected to be found on the bed-rock, and to gain some clue as to the locality of the reef from which such gold has been broken off and washed down in past ages. In regard to the actual quantity of gold obtained no very striking result has been achieved, but several remarkable nuggets have been taken out of the alluvium and cement. One of these, weighing about 28 ozs., found quite recently, has been received, and will be seen by the shareholders with much interest. It is impossible to resist the impression that further gold is to be found where that came from, and this idea has received confirmation in the fact that the latest despatches from Mr. Morehead, received the day before yesterday, announce the finding of another nugget of about 70 ozs.

It is hoped that Captain Holman and the few men working with him may be able to trace the source of the gold. It seems, from the look of the specimens, as well as from the contour of the country where they are found, that the reef cannot be far off, and is likely to be well within the boundary of the company's property. When the subject of this interesting property was before the shareholders at the last meeting the general feeling manifested was that this company should, at present at all events, refrain from serious mining operations or the expenditure of any considerable sum of money. This course the board have followed; at the same time it seems likely that the "chapter of accidents" (which has been a very important one in the history of Australian gold discovery) may develope some features that will require more active dealing with. The board at present simply continue to hold the property, and they are quite prepared to receive overtures from other companies or from individuals for taking it on a lease with royalty, or for selling it if an adequate cash price and sufficient royalty shall be offered. He concluded by moving—"That the report of the directors be received and adopted, and that the dividend proposed therein at the rate of 12½ per cent. per annum upon the paid-up capital of the company—160,000*l.*—be confirmed; the same to be payable, free of income-tax, on and after Nov. 4.

Mr. FERGUSSON said that he thought the reports by Capt. Holman which were received with the report were very important. He had read them carefully. Not only in regard to the alluvial gold found were they interesting, but the fact that a crushing of 26 tons of stone gave 17 ozs. of gold showed that the company had a valuable property. This yield should pay well. He knew from his experience as a director of several gold mining companies. It seemed to him time that active steps were taken to develope the property. He did not say that the company itself should do it; but the property should be brought under the notice of promoters of companies with a view to getting one up to purchase and work it. He had every confidence in the board, and felt sure that they would do what was best in the matter.

Mr. FREWER said the last speaker very much expressed his own views. He thought the company should have two strings to its bow, and that it would be worth while, if no larger plan should be adopted, to spend, say, 2000*l.* a year in exploring Cadia.

Mr. HILL thought that the board had displayed commendable prudence in refraining from spending the companies profits on gold mining; but he would suggest that the time had come when they should consider whether, with such evidence of auriferous wealth as the specimens exhibited that day indicated, they should not take some steps to get the property developed.

The CHAIRMAN, in rejoinder, observed that there was no reason why the property should not be dealt with, although not by this company. The board had no wish to hold it in a dog-in-the-manger fashion, and they would be very glad to consider any well conceived plan that might be submitted for taking over the property and working it. He would remind shareholders that in past years money had been spent upon it and lost; but he felt that they knew to-day more about the property than they did a year ago, and felt much more sanguine now as to the result of a systematic working of the property. In any plan that might be adopted the shareholders of this company would have to have the first offer of the shares, and he thought it very likely they would take them. He would feel inclined, from what he knew now, to take some shares himself. The directors would spare neither time nor pains in considering and dealing with any plan that might be brought before them.

A nugget of gold, weighing nearly 28 ozs., which had been received quite recently from the Cadia property, was inspected by the meeting with apparently much interest and satisfaction. The auditors' fees were voted, and a vote of thanks to the Chairman, directors, and manager, brought the proceedings to a close.

SOUTH CARADON.—At the meeting, on Oct. 24 (Capt. H. Rogers, R.N., in the chair), the accounts for the three months showed a profit of 17*l.* 4s. 4d., and a credit balance of 669*l.* 12s. 4d. Capt. John Holman was pleased to say that they are enabled to return sufficient ores to pay the cost of the mine.

MINING PROSPECTS.—The mining shares and metal markets, as well as the general trade and railway traffics, have been affected during the week by the inclement state of the weather. Fearful storms of wind and rains such as seldom visit us, and the consequent difficulty of getting about from place to place, together with the telegraphic interruptions, have naturally had a serious and depressing influence on nearly all markets. With a return of fine weather, we may, therefore, shortly see a great rebound and continued upward movement in the price of metals, and a gradual expansion of trade throughout the country. Everything now before us goes to confirm a general improvement in prices, and a brisk winter trade.

MINE CAPTAINS, AND TIN-DRESSERS.—A large shareholder in Cornish tin mines writes that in some tin mines in Cornwall it would be better for the mines that mine agents should remain longer at the mines attending to their underground duties, and also looking after the tin-dressers and workpeople on the tin-floors, to see that all the saving of tin be made, and so find its way into the tin bins or hutches, and thus prevent its being washed away from the mines. These remarks are not made in any unfriendly spirit, or as reflecting on the mine management, but are offered in the general interest of the shareholders, who at the several meetings which are held on the mine should insist upon these or similar suggestions being carried out.

Messrs. PIXLEY and ABELL.—GOLD: The only arrival this week consists of about 56,000*l.* per Washington, *viâ* St. Nazaire; a portion of this will be taken for India. The Bank of England has received since our last 55,000 sovereigns, and 41,000 sovereigns have been withdrawn for Egypt: 14,650*l.* in gold coin has been shipped to Madras, per Shannon.—SILVER: The order for Spain, alluded to in our last circular, having been completed, the price of silver has declined to 51½d. per ounce standard, the rate fixed this morning for the bars ex Britannia from Chili; this vessel has brought about 45,000*l.*, the only other arrival being the Gellert, from New York, with 10,600*l.*: 10,000*l.* was shipped to Bombay, and 16,000*l.* to Calcutta yesterday, per P. and O. steamer Assam.—MEXICAN DOLLARS are unchanged at our last quotation of 50½d. per ounce; there have been no arrivals this week. The shipments per P. and O. steamer Assam were 70,100*l.* Penang, and 9000*l.* to Singapore.

Original Correspondence.

GOLD IN IRELAND.

SIR—In last week's Journal I observe that attention is about to be directed to the mineral resources of Ireland, but this time with an object which will be a novelty in its way, and yet one which will in all probability be rewarded with success—the production of gold. That Ireland did once produce the precious metal is a matter of history, and why should it not do so again? A lode 100 feet broad of solid and compact quartz, largely charged with oxide of iron, rising above the level of the surrounding country to a height of 120 feet, and extending for a distance of more than half a mile—means not half a million tons, but over a million tons of the crude material.

In the Memoirs of the Geological Survey this extraordinary lode is thus described:—"At its central portion this fault once formed a wide open vertical fissure extending for a distance of three-quarters of a mile, with a width of 100 feet at its widest part. This is now filled with pure quartz, and as at its apparent termination to the east it contains thin veins of specular iron ore, we may therefore regard it as a true lode," The remark will naturally be made that no one appears to have known of the existence of this extraordinary lode, yet this auriferous lode does exist, and Ireland is the locality—easy of access, plenty of cheap labour anxious for employment, and abundant water-power, and yet nothing has been done to develope or test it.

The reply to this is, that no one beyond the discoverer, and two friends, who were travelling with him when he made the discovery, know anything about it, though it is so prominent a feature that at a distance of nearly three miles his keen eye discovered it and pronounced it to be a good quartz lode. At first his friends were amused at the idea; but they were so impressed with his earnestness that they remained a day at a small hostelry in the immediate neighbourhood. Upon examination it proved to be what he anticipated, and some small samples were indiscriminately broken from the mass and upon assay produced gold, but the quantity at the time was not considered sufficient to induce parties to come forward—7 and 8 dwts. being then considered the lowest produce which would pay, and 5 dwts. would leave a loss. This is not so now. If a yield of 4½ dwts. at the Javali Mines in Nicaragua will give a profit of 421*l.* per month on a crushing of 2296 tons of quartz, why should a similar produce not give a much larger profit where the raw material can be quarried at 6d. to 9d. per ton.

Javali report for August, dated Sept. 6, and given in last week's Journal, gives the following results:—1876 tons stamped gave 437¾ ozs. of gold, being 4 dwts. 16 grs. per ton; 420 tons gave 96¼ ozs., being 4 dwts. 11 grs. per ton. I find 38 heads of stamps were employed to crush this quantity, being at the rate of 2½ tons per day per stamp. The cost of raising, stamping, and amalgamation was only 8s. 9d. per ton, as against a cost of about 28s. per ton in 1860 in Australia, and at the present time of about 16s. per ton.

If any readers of the *Mining Journal* who may understand the different systems of manipulating gold quartz, free from pyrites, will give their experience, it will be interesting to many who are concerned in gold mining speculations. It appears to me that the wet process of treating with chlorine and turning the gold into a chloride would be the best adapted and decidedly the cheapest. Prof. Readwin, with his great knowledge of the subject, would perhaps favour your readers with his ideas. If this discovery had been made in any distant part of the globe investors would be rushing in to secure shares; but a discovery within 24 hours of the Metropolis is neglected.—*London, Oct.* 27. F. G. S.

SILVER HILL MINE.

SIR,—Your correspondent "N. N." is rather disturbed by the prospects of this mine. So am I, although beyond doubt there is wealth of silver-lead in the Callington district, and ample silver to pay dividends in its lodes. But what might be a good enterprise is often spoiled by bad management and ignorance. I have read with interest the letters of "An Old Amateur" and "B." on the locality and its silver zone. What I fear is that the manipulators of Silver Hill do not intend it should turn out anything better than promising reports, great expectations of marketable ware, but no reality for the market. What is the use of driving a tunnel through the hill, and cutting this and that precious lode, if it is to end in a short time in utter exhastion of the capital, which must now be pretty nearly accomplished, judging from the statement of accounts to the end of April, 1881? I should like to ask "Miner" or "B." whether, seeing how the venture is being managed, it does not appear that it was started for some other purpose than to work the lodes? If not, then it is pretty well time that the lodestuff should be treated with a view to sale, instead of being put aside or piled. I ask, like "Miner," what have directors done with the silver ore that has yielded from 10 to 40 ozs. of silver to the ton? If they have not done anything with it, do they mean to, or to go on tunnelling and lode cutting till there are no more fees to be had? By this time Silver Hill should have been putting forth good signs of something towards self-support, but it looks rather as if it was to follow Lady Ashburton into a state of collapse. The property will have been improved immensely from the shareholders' purse; but for whose benefit? By the accounts to April 30 the vendors had a grip on it in the shape of an unpaid balance of 1671*l.* 10s., an ugly cloud. At the statutory meeting, June, 1882, Major Fortescue said he "did not consider the mine required any more funds. It was his opinion that it would be self-supporting before half its subscribed capital was exhausted." Oh, that Major Fortescue's words were true! But, alas, for false prophets. I hope we shall have some signs shortly more cheering than the present.—*Usk, Oct.* 23. A. S.

SILVER HILL COMPANY.

SIR,—I have to thank "N. N." for his complimentary remarks in last week's Journal, concerning myself, as regards the management of the Silver Hill Mine. All the officers of the company have, I think, done their best to develope the property. We began driving the tunnel in the latter part of June, 1881, with rock-drills, since which time we have gone through 280 fms., and cut four lodes—the blende lode, Dreamer's lode, a copper lode, and Wheal Brothers silver lode. The first two lodes mentioned, when intersected by the tunnel, is at a comparatively shallow depth from surface, being 15 and 25 fms. respectively; very little has been done in driving east and west on their course. Some samples broken from each of these lodes produced 7 and 9 ozs. of silver to the ton of lodestuff. The next lode being met with was the copper lode, which is about 35 fms. in depth. In passing through it we broke some splendid stones of copper ore, which produced from 20 to 30 per cent. Some good ore is still remaining to be seen in the back of the level at the present time. In going on with the driving of the tunnel on towards Wheal Brothers lode, we passed through several branches, consisting of mundic, black oxide and yellow copper ore. These branches, together with the copper lode, are underlaying north, and will unite with Wheal Brothers lode from 20 to 30 fms. below the tunnel.

Such similar intersections have proved very rich in the production of silver ores in some of the adjacent mines, and I believe would prove to be the case in this mine whenever the junction of these lodes are seen. The next lode reached is Wheal Brothers lode, which is about 40 fathoms in depth. Here we have six men engaged in putting up a rise from the back of the tunnel in a very promising lode, composed of white iron, friable quartz, with flookan and iron pyrites intermixed, some stones of white iron showing visible silver, the whole of the lodestuff being saved reduction work. There are about 250 fathoms more to drive to reach the north boundary, in the course of which drivage we shall cut five lodes at from 55 to 86 fathoms in depth. From what I know of these lodes, when opened on, in the adjacent mines, I am of opinion we shall find them productive of tin and copper ores in good and paying quantities. I was agent of the Princess of Wales Mine and remember the workings quite well. The engine-shaft is sunk 56 fathoms from surface, the only drivage in the bottom part of the mine is 5 fathoms of crosscut going out towards one of the south lodes. The lodes in the upper levels being a regular mass of burnt up gossan, altogether showing great mineral strength, and it was expressed by several mine agents who inspected the mine that it was in connection with large bodies of mineral.

This mine forms part of Silver Hill, and we shall cut these lodes in our tunnel over 30 fathoms below the bottom of the old engine-shaft. Upon intersecting these lodes, however, I expect to make some good discoveries, and shall be able to drive on the course of the lodes and unwater all the old workings without pumping machinery. I have before spoken with great confidence regarding the Good Luck lode, and am still of the same opinion, and think when cut in the tunnel will be found a profitable lode to the company, which cannot be far off from the tunnel forebreast. To turn again to the Wheal Brothers lode, which runs nearly 600 fms. through the grant. From such long extension of ground I must say that in my opinion valuable deposits of silver ores are contained within its limits, and any day we may cut into a rich bunch, sufficient not only to pay for the erection of reduction works, but also to return good profits to the shareholders. "N. N." complains that my reports are meagre. I endeavour to explain every week as to the appearances generally of the points we have in operation.

In a report I think it my duty to confine myself to what we are doing, but I think the time is not far distant when I shall be in a position to report upon more, larger, and valuable things. I may, perhaps, be allowed to say what I expect. I have read the reports which accompany the prospectus, and shall, I expect, prove they are not too glowing. From the number of lodes we have in the sett I expect to open up a rich mine, and to receive large dividends upon my shares. I consider we are doing well with extending the underground workings since we commenced; the further we explore the more pleased I am with the prospects. Mining is uncertain, and if it were not so, everybody would be a miner, but the only uncertainty in Silver Hill is, in my opinion, when, and not whether, it will turn out rich. So far as I can estimate, we are almost sure to have a good discovery very shortly, and we may have one any day. I wish every shareholder would come here and let me show him over the mine.

Silver Hill Mine, Callington, Oct. 26. G. RICKARD.

FOREIGN MINES.

AKANKOO (Gold Coast).—Sept. 27: The unloading of the Jessy has been satisfactorily completed, and Mr. Lane writes that the launch and lighter went backwards and forwards to the ship, returning over the bar each time with about 20 tons of cargo; and, writing on Sept. 27, he states last Friday the launch towed up the lighter and two surf boats, the freight being in all about 32 tons and this was taken from the river mouth to the mine against a 4 mile current in five hours. The launch has now been thoroughly tried, and the company is to be congratulated on the possession of so useful a boat. With respect to the mine itself, Mr. Lane writes:—"From the examination I have made of the reef I feel sure that it is one of the most valuable in the world, not only as regards the quality and nature of the rock, but also its eminently favourable situation for properly and cheaply working the mine." And further goes on to say—"There is a back of ore apparently above water level of not less than 150 ft., running the whole length of the hill, and from the nature of the property it is quite within the bounds of probability that there are many other reefs fully as valuable as the one we are now looking forward to work. As far as I can judge the gold in the quartz is all free, and there are no pyrites to speak of. This of itself is a most favourable augury of success." Mr. Lane hoped to start from Axim on Oct. 16, and be in London about the middle of November for the purpose of inspecting and taking out the machinery.

ALMADA AND TIRITO CONSOLIDATED SILVER.—John Clark, Sept. 9: The main stope above tunnel, Mina Grande, is looking about the same; it is 53 ft. from bottom of tunnel. The rise in San Juan is looking very promising. I value it 1 ft. ore, but it shows indications to increase. The north drift, San José, is looking much the same as the last fortnight, and is not giving ore enough to value. In the cross-cut in the 100 ft level we struck attle in old workings; it is 70 ft. from the western side of drift. In the pillar 100 ft. level we have also struck attle. The four weeks' run to Sept. 18 amounted to $28,811·02. August profit, $5346·43. Further remittance reported of $6000.

BRATSBERG COPPER.—J. Daw, A. W. Daw, Oct. 17: Murchison's Shaft: This shaft is in full course of sinking under the 25; the lode is 3½ ft. wide, and yields 15*l.* worth of ore per fathom. The 26, east of this shaft, is worth 18*l.* per fathom. The 25 west is of the same value; we have four stopes working to the east and west of this shaft producing 15*l.* worth of ore per fathom each.—York's: A level driving east, present value 12*l.*; ditto west worth 13*l.* per fathom. There are five stopes working to the west of this shaft yielding 14*l.* worth of ore per fm. each. No. 3 adit lode is 2½ ft. wide; present value 10*l.* per fathom. We soon expect an improvement here, as we have a winze sinking ahead of this end about 12 fathoms, in a lode worth 14*l.* per fathom. The winze sinking in the bottom of this level is at present not to value. We have three stopes working in the back of this level yielding 12*l.* worth of ore per fathom each. In No. 2 adit the lode is 2½ ft. wide, worth 10*l.* per fathom, and improving. In the winze sinking in the bottom of No. 2 the lode is 3 ft. wide, worth 14*l.* per fathom. We have three stopes working in the bottom of this level producing 13*l.* worth of ore per fathom each. A rise in the back is producing 12*l.* worth of ore per fathom. There are two stopes working in the back of this level producing 12*l.* worth of ore per fathom each.—Johannes' Lode: We are putting up two rises in the back of the adit level, which are producing ore to the value of 12*l.* per fathom each. We are also working three stopes in the back, which are yielding 11*l.* worth of ore per fathom each. We expect to finish building the loadings for the machinery by the end of November. Drawing the machinery to the mines is progressing satisfactorily. A vessel is expected every day at Skien in the place of the Via, and we shortly expect the Mary Owens back to load again. The greater part of the ore for these two vessels is now at the port of Skien.

CALIFORNIA GOLD.—A. Rickard, Sept. 30: The 1300 ft. level, east of shaft, is in 133 feet, and yielding 3 tons of fair grade milling ore per fathom; the lode has fallen off in value and size, but the change is only of a temporary nature. The 1300 ft. level stopes, east of shaft, is in 133 feet; a good improvement has set in in these works; lode 3 ft. wide, yielding 9 tons of milling ore per fathom. The stopes run a length of 60 ft. The 1300 ft. level, west of shaft, is in 114 ft.; the main ore shoot has come into this drift, and a much better quality of mineral is resulting; the vein is 2½ ft. wide, yielding 7 tons of good grade milling ore per fathom. The 1200 ft. level, west of shaft, is in 330 ft.; vein of good quality, yielding 4½ tons milling ore per fathom. The 1200 ft. level stopes, west of shaft, is in 330 ft., yielding 6 to 7 tons of fair grade milling ore per fathom, and a little good quality smelting ore. The 1100 ft. level, west of shaft, is in 254 ft.; no work done during the past week for want of hands, but will be resumed shortly. The 1100 ft. level, east of shaft, is in 148 ft.; assays of ore discovered in this drift show it to be of exceptionally high grade; the vein continues to yield 3 tons of ore per fathom. The 1100 ft. level stope, east of shaft, is in 148 feet, yielding 10 tons of milling ore per fathom; the mineral appears to be of better grade. In a letter, dated Oct. 3, Mr. Rickard says:—I am pleased to say that an improvement has taken place in the mine. The striking of the main ore shoot at the 1300 ft. level west opens out the prospect of a run of 200 ft. in good paying mineral, which, being intact for 100 ft. above—to the 1200 ft. level—will yield stoping ground for eight or ten months, and supply from 30 to 35 tons of ore per diem for all that time. The bunch of ore at the 1200 west is holding out well, and increasing the reserves. A third point of great interest is the 1100 east, where ore is being discovered in new ground. It is of exceptionally good grade, and, although the vein is not large, it will pay well to work. Now that we have mineral for 50 stamps coming from the stopes and drifts, 25 stamps have been started on the tributers' ore at the Hidden Treasure establishment. On the 25th inst. the following telegram was received from Mr. Rickard:—Mill run (eighth week), 308 tons; net value, $3600 (720*l.*); ore sales, $500 (100*l.*)

CANADIAN COPPER AND SULPHUR.—Francis Bennetts, Oct. 13: Hartford Mine: I am glad to report a general improvement in the appearance of the vein applicable to the following:—In the 50, driving east, at No. 5 shaft, the vein, or rather the ore part of the vein, is 8 in. wide. The rise in the back of the 40 east, on the ore part, is 18 to 20 in. wide. The 10, east and west of No. 3 shaft, on ore part, is 2½ to 3 ft. wide. The 35, west of No. 1, on ore part, is 2 ft. wide.—St. Francis Mine: The ore part of the vein in the rise in the back of the 30 north is about 1 ft. wide. The smelting works are running satisfactorily.

COLOMBIAN HYDRAULIC.—A. E. Oakes, Sept. 18: Malpaso Run, No. 67, from Aug. 17 to Sept. 15, during which time washing was carried on for 680 hours, has resulted in the return of $8877·37, the cost for the same period being $2158·60, leaving a profit of $4718·77 = 943*l.* 15s. 2d. During the run just concluded the water has only been turned off three hours for repairing burst pipes, and partially off for another three hours repairing Medina ditch. On commencing the clean-up on the 13th I turned the water on in the lower mine to endeavour to carry off the tailings which have accumulated in the crooked portions of the lower sluices. It continued running until the afternoon of the 16th, when it was turned off to put in 150 ft. of flumes on the ditch, which work is now going on, and I hope will be finished to-night, in which case the next will begin, as the mine is now ready. I took the above precaution to avoid a bad break in the ditch, which must have occurred sooner or later if left to itself. I propose to continue washing in the same place during the next month, as everything is ready there, and the following month I shall widen the face on the south side. The produce of the mine has been improving from month to month, but I do not expect further improvement, because at the beginning of this run everything was in as good order as I could wish, and there has been scarcely any interruption. Had the sluices been straight, or even moderately crooked, we could have done better.

COLORADO UNITED.—Mr. Ward, Oct. 7: The mill has been running well day and night during the week, except on Saturday, when they were putting on a new driving-wheel. In the 13th drift there is 3 in. of good ore; the 12th drift shows 2 in.; the stopes are producing from 3 to 4 in. of ore. The winze in the bottom of the 12th level is sunk 10 ft. since last reported in ore. All the tribute pitches looking as last reported. Ore sent away during the week amounts to 404 sacks.

DEVALA MOYAR GOLD.—Mine Manager, Oct. 2: Strathearn mill would have been completed now, had we not been delayed for timber. Three buddles are finished and the fourth about half done. There are some trifling connections to put on the boiler, and then everything will be complete. I am pressing for the balance of buddle gear for this mill from Bombay. We are opening up the reef and preparing for stoping out as soon as the mill starts. We are driving both north and south from the main tunnel on the line of the reef; the quartz in both drives looks well and contains a large quantity of pyrites. We are also putting in a raise up at the end of the main tunnel, and it is now about 20 ft up, and we are sinking a shaft from the surface, which is now down 20 ft. to meet the raise up I expect to meet during the week. No. 2 tunnel, in which

the timber was all crushed during the monsoon, has been driven again, and on Friday last struck a good reef, showing some gold and large quantities of pyrites.

EBERHARDT.—F. Drake, Sept. 23: Drift 1: Total distance run Sept. 16, 507 ft.; run for week ending Sept. 23, 22 ft.; total distance Sept. 23, 529 ft.; run for month of September, 83 ft.—Drift 3: total distance run, 243 ft.; run for week ending Sept. 23, 18 ft.; total distance Sept. 28, 261 ft.; run for the month of September, 46 ft..—Upraise: total distance run Sept. 16, 157 ft.; run for week ending Sept. 23, 8 ft.; total distance Sept. 23, 165 ft.; run for the month of September, 24 ft.—Drift 2 from upraise: total distance run Sept. 16, 83 ft.; run for week ending Sept. 23, 7 ft.; total distance Sept. 23, 90 ft.; run for the month of September, 26 ft. The rock in the upraise is a little softer, and stringers of spar are coming in. In Drift No. 2 the rock is hard, and I think we will soon find it better. Drift 1 continues in quartz and low grade ore. Assays from the stuff show up to $10 per ton. What will be the final result of our explorations along this break is certainly exceedingly difficult to foretell; with every change I am hoping that the next will be more favourable.—General Outlook: The showing at all four of our working points is favourable for a better development; all have the main wall upon which our drivings are being extended, and no day passes that we do not find more or less quartz, which we find mineralised into a low grade ore, of itself valuable as showing the presence of silver, and serving as an encouraging indication that we may soon open into paying deposits, albeit that on the part of all concerned the long delay is a sore trial of faith and patience. That the depth of our workings as at present developed shows silver I think should encourage all to a contiuuance of effort, with the hope that eventually a cheering rewaad would be the result.

ENGLISH-AUSTRALIAN GOLD.—Mark Pollard, Fryerstown, Sept. 11; No. 1 Pitch, 140-ft. Level: The north drift has been driven up to the old face; the stone in the drive is very small, only 6 in. thick; there is stone on the eastern side of the drive from 1 to 2½ ft. thick, but in very hard ground. I think the stone payable. The south drive has been extended 8 ft. during the past fortnight; stone 3 ft. thick, but very hard and poor looking; 80 tons have been passed through the battery, and I shall clean up on or about Sept. 15.—No. 2 Pitch, 120 ft. Level: This tribute party have been driving north, and stoping on the western side of the drive; stone rising very fast, going north, and more broken up in small leaders, but still going with the slide: stone about 4 ft. thick, and 18 ft. from eastern to western side of it; 170 tons have been passed through the battery since we last cleaned up.—No. 3 Pitch, 240 ft. Level: This pitch is looking very poor; a rise has been put up and holed through to the winze, 3 ft. have been driven north, and the footwall of the lode has been met with, the quartz cut out, but a leader was discovered making south and west from the winze that is being driven on it, is about 1 ft. thick, and there is a little visible gold in the stone. We have crushed from this partiess' five weeks' work, 130 tons of stone; result, 27 ozs. 14 dwts. retorted gold (yield 4 dwts. 5¼ grs. per ton).—No. 4 Pitch, 360 ft. Level: This tribute party are driving south, and stoping the western side of the drive. The quartz intersected is accompanied with slate and sandstone bars. The stone is from 6 in. to 2 ft. in thickness, and from the east to the western side of the workings about 16 ft.; crushing will be commenced on this stone some time this week. We have had only 10 stamp-heads going for the last 16 days, as the big party can only keep five heads of stamps going. I hope we shall be able to keep the other five going very soon.

GOLD COAST.—Manager, Sept. 12: Plant: The erecting of the engine, boiler, elephant stamper, and pump is complete. The stonebreaker will be finished tomorrow, and the elephant stamp gold saver by the end of the week. The gravitation stamps will take three weeks more. The six settling pits are sunk, but not yet all slabbed. I should have started the elephant stamper before now, but the proximity of the excavations for the foundation logs of the gravitation stamps makes it unsafe to start work before these excavations are filled in.—Quartz: I have from 12,000 to 15,000 tons of stuff ready for the mill.

HOOVER HILL.—Mine Manager, Oct. 7: The vein, both in the Gallimore shaft and the south-west drift at the 130 continues about the same. In the tunnel cross-cut No. 3 (west into the hard dyke) the ground has become somewhat easier. In the drift north from this cross-cut along the ore-body a little ore continues to be got. There is no change to note in the Hawkins shaft.

INDIAN TREVELYAN.—The Manager, Oct. 2: No. 1 Shaft: At about 20 ft. below the adit we have just cut through the reef. Its thickness at this point is 3 ft. 8 in., and contains about 1 ft. in width of almost solid pyrites and ferruginous matter. When I mention that the rock in which the reef occurs is the hardest gneiss it will be understood that the quartz is of the most hard and compact nature to live in such rock. The selected stone looks most encouraging, and some assays of it will be made this week.

ISABELLE GOLD AND SILVER.—Lewis Chalmers, Oct. 2: The Orion company are working on the same mineral belt as Stella, to the south of, and about 500 ft. from our southern boundary; but their tunnel is about 400 ft. below the level of our winze chamber, so that when we get our shaft down, possibly before that depth is attained, we are very likely to get the same sort of ore, in addition to our present gold, silver, and copper. The silver-lead assays over $200 in silver, and 40 to 50 per cent. lead. As yet they have only 6 in. of it, but had not began cross-cutting when I was there on Friday. At the mine we have finished the excavations for the addition to the hoisting building (which, as I have explained) was too short for our hoisting machinery, and on Saturday I put on two carpenters to build the addition. All the machinery is on the ground except the boiler, which, but for the sickness of the teamster, would have been there also. I shall have it up this week. The drift (180 ft.) from the winze chamber to the shaft is completed, and we are now opening out the station on that level. So soon as that is done we shall commence re-timbering the shaft, for which a large portion of the 10 by 10 and 8 by 8 timber and logging is already on the ground. At the mills I have two masons busy on the furnaces, and two more are expected here to-night. The foundries have disappointed me with the ironwork, but I hope to have it here this week. The woodwork of the agitators will be made here. I am driving the work as fast as I can. Yesterday and to-day we had a fall of snow, which hindered us a little, but it seems to be again clearing up.

KAPANGA.—James Thomas, Sept. 9: We have raised and crushed during the month 55 tons of general lodestuff, which gave 30 ozs. and 67 lbs. of rich prill specimens, yielding 134 ozs. 8 dwts. with the 30 lbs. of specimens I forwarded to London, averaging 2 ozs. gold per pound of stone, makes the total yield of 224 ozs. 8 dwts., or over 4 ozs. gold per ton of quartz.—The 50, Scotty's Lode: No. 1 rise has been further stoped in the back 4 ft. high by 50 ft. long, height of rise, 90 ft.; the lode continues from 1 to 2 ft. wide, of the best description of quartz and strongly auriferous minerals embedded in the usual kindly killas composing the lode, occasional blotches of coarse gold being frequently seen; the lode has every appearance and composition for making a run of gold stone at any moment.—No. 3 Rise South: This rise has been further stoped in the back 6 ft. high by 25 ft. long, height of rise, 25 ft.: the lode has been from 10 to 20 in. wide, consisting of soft suggary quartz highly intermixed with strong black mundic, and carrying the usual soft killas; some splendid specimens were obtained here during the month. The south end has been further driven on the course of the lode 52 ft.; length driven south of cross-cut, 117 ft. As anticipated the late thin seam of black flookan made into a nice compact branch of quartz from 10 to 15 in. wide, which has occasionally produced some of the richest specimens obtained for the month. The lode continues regular, carrying a nice soft change of killas ground, which is also full of fine black mundic.—Stoping Level South: In consequence of the No. 2 rise north being for the last month going through a poor piece of ground I put the men for a week or two to strip down the lode on the right side of the level below No. 1 and 3 rises. The stope has been carried 15 ft. deep by 20 ft. long; the lode here is of precisely the same character as it is in the rises and south end, at times producing some good specimens, which proves the gold ground is as strong going down as we have seen above this level. Finding the water draining into the stope through the porous lode it will be desirable to discontinue this stope for the present, and will put the men to rise some 60 ft. south of No. 3 rise immediately. The specimens and best crushing stuff obtained during the month came from the No. 3 rise and south end, the No. 1 rise and underhand stope yielding a little. The magnificent specimens of gold quartz I forwarded to London came entirely from the two first places. I am pleased to say the terrible rains have at last ceased, and after a dry week commenced to fork the water in the 70 on the 4th inst.; the water is going down steadily, and hope to see the bottom clear in 14 days from starting. The two boilers are working well, and the machinery in the best of order. The general prospect underground are daily improving.

KOHINOOR AND DONALDSON CONSOLIDATED.—The usual weekly report from the Donaldson Mine, with measurements, has not yet come to hand. The directors have this week received advices from the resident director, under date Oct. 3, in which he says: "The mine looks most satisfactory throughout, especially at some points indicated in the last monthly report forwarded. The ore is very massive, like No. 4 winze, which is fully worth 10 tons per fm. Several contractors have been over the ground, and estimates for building our trams will soon be in hand. I enclose designs of the tram, and send by this mail a descriptive pamphlet. The plan for our entire works and operations at the Donaldson and Champion Mines is very comprehensive and complete throughout. The ore will fall, as it is broken in the stopes, upon the stulls, from which it will run into cars ready to receive it. These cars will be sent forward to the shaft, where they will be drawn to the surface by the gravitating power of the Hallidie tram, created by its descent with loaded buckets down the mountain. As our trams will be on an angle of between 45° and 50°, the power we shall derive from it will be sufficient to raise all ore and other material from the mine, and carry all the timber and mining supplies up the mountain to points where they are required. The saving of expense in this way would, in itself, be a source of income. After the cars loaded with ore reach the surface they will discharge automatically upon a dump; from this dump the ore will run through ore shoots into the buckets on the train, and pass down the mountain to the ore dump at the mill. From this dump the ore will run into the crushers, and then on through self-acting arrangement throughout the mill, until the process of treating the ore is completed. The plan we have laid down is to dispense with costly hand labour in every possible way, from the time the ore is broken in the stopes until the bullion is separated from the rock."

— Oct. 26 (Telegram): Donaldson shaft entering rich run grey copper; indication most satisfactory. Rich run ore coming in four drift.

MISSOURI.—Advices this week state that operations are being carried on at the Victoria lode. The levels north and south at a depth of 100 ft. are now under way. The lode is about 12 in. wide and carries 3 in. of lead ore.

NERBUDDA COAL AND IRON.—Monthly Progress Report for September: The total output for the month of September amounts to 1587 tons 5 cwts. 3 qrs. 20 lbs.; of which 1344 tons 17 cwts. 0 qr. 20 lbs. are sales, and 242 tons 8 cwts. 3 qrs. for colliery consumption. The chief reason of the quantity being slightly less than last month is owing to the slackness of attendance of men through there being field work going on, and holidays.—No. 2 Shaft: I have nothing to report on this district during the month, as most of the places have been drowned out, as the new Special is not at work, though I expect it to be so in a day or two's time.—No. 1, South Level: There are four south headways going in this district, and all the faces to the south are looking well, and the furthest north headways have not yet been stopped with the dyke, as might have been expected. There are four east bords in this district, and five west bords, and owing to the Chargaum district being laid off, I have been working a little broken in this district next the hitch that divides Chargaum from south level. In No. 1 south headways have gone 5 yards during the month; No. 2 south headways 4½ yards; No. 3 south headways 5 yards, and No. 4 south headways 4½ yards. This district, and the 3 and 4 seams, south side, have been the source of the whole produce for the month. In the 3 and 4 seams, south side, there are two headways, one going north and the other south. The north headways have gone 4 yards during the month, and the south headways 3½ yards, but at this distance it was stopped against the 60 ft. dyke, which throws the No. 2 seam south. Level opposite to the 3 and 4 seams, the 3 and 4 seams being thrown down 60 ft. There are in this district four east bords going 12 ft. wide, and one east bord 6 ft. wide (the pump or winning bord), and all these seams have gone well during the month. There is also a bord in the top seam, which will eventually be the rolling-way bord, and which is driven through the trouble or dyke into the No. 2 seam in the incline, and thus making a tramway for the coals out of this district to join the trams coming out of the south level in the No. 2 coal. Helen Pit has now reached a depth of 171 ft. making the depth sunk during the month 14 ft.; but besides this about 20 ft. of cribbing has been taken out and 20 ft. of walling put in in its place. There is still about 18 ft. of walling to put in, but we are going on sinking as all the circular stones required are not ready yet. The cribbing is of course still in the unwalled piece. The bottom of the pit is again in red and purple clay, the previous conglomerate bed only being 7 ft. 6 in. thick. No. 2 boring was recommenced Sept. 18, and it was found 14 ft. had filled up during the stoppage. The hole was cleaned out, and 266 ft. 6 in. of 3½ in. pipes were put into the hole and boring recommenced. The total depth of the hole to Sept. 30 was 283 ft., and the stratum red conglomerate. No. 5 boring has gone 67 ft. 9 in. during the month having reached a total depth on Sept. 30 of 159 ft. 8 in.; the strata passed through being alternately red and purple clays and conglomerates, but 41 ft. of the depth for the month being in conglomerates, very hard. As well as the surface borings, I have a boring underground in the south level district to prove the presence of the 3 and 4 seams below the No. 2 on the south side of the 60 ft. dyke. This boring is 48 ft. 4 in. down, and I only expect it to go to 80 ft. at the outside before pricking coal. It is necessary to ascertain the position of the 3 and 4 seams to get the gradient of the new drift. I purpose to put to the surface at this point to expedite the getting out of coal.

NEW EMMA SILVER.—G. Cullens, Oct. 7: In my letter of Sept. 28 I said the mechanics would be here the first of the following week to put the boilers in place, but on account of a very severe snow storm beginning at this time they are delayed. Fully 2 ft. of snow has fallen; the weather is now very cold, and still snowing, in consequence of which the placing of the boilers will be further delayed. On account of the great disadvantages to contend with at present it will necessarily require more time to do this work than we could have done it a month earlier. Pipes are now being put in the tunnel. Coal is arriving, to pay for which I shall have to draw for a considerable amount this month. I shall lease the old workings of the mine for the winter (six months) to a party of good miners, on a basis of 35 per cent. of the proceeds of all ore mined and sold, to be retained by our company, the remaining 65 per cent. to be paid to the leasers. This method of working the old caved ground I am fully of opinion is far better for the company than any other way we could work it. I have been in hope all along that by Nov. 1 we should have everything in place and in good mining order, but regret very much to say the early snow storm will delay us a little longer.

NUNDYDROOG GOLD.—B. D. Plummer, Oct. 3: Mining Operations: All goes on as usual, and I am glad to inform you that the lode at one or two points look better.—New Shaft, Maharajah Reef, North End: The lode is well defined; it is 2½ ft. wide, contained between two good walls.—Taylor's Shaft, 95 South End: The lode is 3½ ft. wide, and the ends above the back of this level are both looking well. In the north end the lode is 3½ ft. wide, containing a large compact rib of auriferous quartz. The reef in the south end is 3½ ft. wide, of a friable character, containing a quantity of iron oxide.—Eastern Reef: The lode in the winze below the 70 is 4 ft. wide; it has a better appearance, and the show of gold in the pan has increased. We are making gradual but sure progress.

ORGANOS GOLD.—Aug. 26: A cleaning up was made from the Britten pans; 19 tons 6 cwts. of quartz had been treated, and the yield was 2 lb. 6 ozs. of gold, being an average of over 1¾ ozs. of gold per ton. There appears to have been some loss of gold in the treating of the quartz. The yield is accordingly deemed most satisfactory.

ORGANOS.—J. G. Green, Aug. 31: The settings for Aug. 26 to September are as follows:—To cross-cut north in the end of Rogers', at $40 per fathom; the character of the ground in the forebreast I consider favourable for the production of rich mineral. It is composed of a reddish killas, with clay and lime joints and partings. To stope the back of Buenaventura, east of No. 1 winze, at $12 per fathom; worth 50*l.* per fathom. To cross-cut (No. 1) north of Buenaventura, at $25 per fathom, as indicated last month. The object of this cross-cut is to try for the numerous small but rich branches of lode that are to be seen at surface in this direction. To drive on a branch lode in a north-east direction at Esperanza level, at a point 10 fms. east of No. 1 winze. This branch was discovered by timbering the roof, and followed. It is about 15 in. wide, embedded in the same heavy clay ground that we have had to contend with from the commencement of this level. It is composed of rich gossan, with very excellent stones of quartz, and worth 30*l.* per fathom. As soon as we get the mine fitted with tramways and cleared of stuff, &c., about 50 men can be employed to advantage. This work is in hand and progresses favourably. I intend recommencing work at Te Encontre as soon as every thing at Constancia, including the mill, is in working order. There is no assay report to send for the month, as I did not think there was anything calling for a special assay. Mr. Mills sends a report (No. 1) of the crushing of 18 tons, and as he explains fully the facts relating to the loss, I will not comment on same here.—Surface Operations: During the month the mill shed has been roofed with oak tiles, about 20,000 having been used and a first-class job made of same. The shed has only been partly boarded, and we will try to get this work finished as soon as we can get plank delivered for same, for, owing to the robbery of our amalgam, it is absolutely necessary to have all closed in and under lock and key. The Brittens' pans are now working fairly well, and the turbine shafting, &c., work splendidly. The stamps are being pushed on as fast as can be expected with the small staff of men employed. The incline and passes are now having attention since I am assured of the necessary funds to complete the works. The smith has made some excellent iron tram wagons for incline work. A very good calcining furnace of brick has been built, and proves very efficient. This will enable us to crush a certain proportion of the quartz in the Britten's which, without calcining, could not be done. I do not send the gold we have, as it is so small a quantity, but will forward it in one bar with the August-September returns.

— F. G. Mills: On Aug. 26 the whole of the Britten's pans (four) were tapped and cleaned. On Monday following the mercury was retorted off, and in the retort was left a mixture of gold and iron. The weight of the resulting gold was 30 ozs.; however, when I came to weigh the mercury that was obtained from the retorting I found there were 191 ozs. missing, 1443 ozs. having been put in the four machies and only 1252 ozs. obtained from the retorting. I can only give one explanation of such a loss—robbery. By whom I have not been able to discover. I am sure, however, none has been taken out during the daytime, as I have been there myself, as also several nights until midnight. It must, therefore, have been extracted some night or nights, and, as the mill at present is open, this may not have been difficult. As you have decided to close in the mill before recommencing work, of course such a robbery cannot take place again. The amount crushed was 19 tons 6 cwt.

PIERREFITTE.—The Manager, Oct. 23: We were not able to clear out the orestuff which we took down from the back of the lode until Saturday morning, owing to our being obliged to break up the rocks, and that took a great deal of time, so we have done very little work on the lode for the week. We have sent to the floors 180 tons of this ore. The level being put in below the present adit level is now advanced 8 fms. The ground has been rather unfavourable for driving so far, but we are now come into the part of the slide where the ground is much easier, and I expect we shall make much better progress in driving than we have yet done. Nothing new to say about the north mine. Machinery working well.

PLACERVILLE.—Sept. 30: Have not sunk any in the winze from 7th level during the past week; the usual amount of ore has been extracted from stope in same—indications at this point are very encouraging. The usual amount of ore has also been extracted from west vein stopes, between 5th and 6th levels, showing some little improvement since my last report on same. Everything running smoothly at mill and mine.

RHODES REEF GOLD.—Mine Manager, Oct. 2: Rhodes Mill: I am very pleased to inform you that all the buddle gear has arrived and has been erected. It is working well; in fact, no machinery could work better. Having now mercury wells, copper plates, tables, blanket strakes, and buddles all working well, there will be no possible chance of losing any appreciable amount of gold. We are working the 20 heads, and the whole mill works very smoothly, and, notwithstanding that the wood is very wet from the monsoon rains, a coolie can fire the engine so as to keep up steam for battery, buddles, and stonebreakers very easily. The cry about the difficulty of saving the gold in the pyrites is altogether uncalled for as far as I know at present; this cry is partly made through ignorance and partly to cover former misrepresentation or exaggeration. With our present appliances we shall be able to save from 90 to 95 per cent. of the sulphides, and if, in the after treament of them in the Chilian mills, &c., we find we are losing gold we will soon discover the cause and prevent the loss. Last week I could only drive the mill two shifts, and I had to be there most of the time myself, as the men, not being sufficiently acquainted with the work, could not be trusted alone. I have had two extra men on to look after the mill, which I will start this week with three shifts of eight hours each, as the men have not been sufficiently acquainted with the work. The Chilian mill is as nearly ready to work as I can make it until the amalgamator arrives, when I will put it in and start treating the pyrites.—Rhodes Reef: The quartz we are driving in continues to look well. I could see fair gold in the main No. 3 drive when I was there on Saturday. We are opening up the reef as fast as possible, and everything is going on well. The main or lower tunnel is still at a standstill on account of excessive drainage, but as soon as the water will permit we will continue to drive up the hill along the course of the reef for half a mile or so, and during the dry weather it will be properly secured, so that during the next monsoon the ground will be properly drained.

RICHMOND CONSOLIDATED.—Telegram received from mine at Eureka, Nevada:—Week's run (one furnace), $19,000 from 478 tons of ore; refinery $20,000.

— Samuel Longley, Oct. 2: The 300 south-east drift from south-west drift has been extended 15 ft. Total 108. In very hard but favourable limestone. The 300 south-west drift from station has been extended 8 ft. Total 167 ft. Limestone same as in south-east drift. The 700 prospecting drift has been run 10 ft. in limestone, contained spots of iron and galena, last 6 ft. very hard, no further traces of ore. 700 rise above stopes on 700 (two months' work). Total distance up about 90 ft. First 30 ft. in fair ore, remainder in poor vein matter, now limestone. Several lateral drifts from main rise all in poor vein stuff. 700 winze and explorations downward (two months' work). Total depth attained on incline 106 ft. Several lateral drifts and secondary winzes amounting to about 100 ft. Some good carbonate ore encountered in main winze, several packets of low grade ore and a very large amount of poor vein stuff. Bottom of the winze will soon be connected with ore seam in new north 800. The 800 west drift from north drift from quartzite has been extended 9 ft. Total 256 ft. In limestone stained with iron and full of joints. The 800 north-west drift from above has been extended 19 ft. Total 56 ft. In limestone highly stained with iron and full of cavities. Run to connect with rise from 900 north-east drift. The 800 new north drift from quartzite drift has been extended 9 ft. Total 261 ft. Face in limestone, last 20 ft. in broken ground, vein matter and ore. Temporarily stopped while rising and drifting. Risen 15 ft. in southerly direction through yellow carbonate and low grade ore from 6 to 2 ft. in thickness (very irregular), and narrowing to a crevice at top of rise. The 800 north-east drift from end of new north drift has been run 25 ft. in carbonate, low grade ore and vein matter; north side of drift chiefly hard limestone, face in low grade ore and vein matter. Temporarily stopped while working in rise above. The 800 north-east drift from north-west drift has been extended 13 ft. Total 50 ft. In very hard limestone, run to connect with above described workings. The 900 new north drift from west drift has been extended 26 ft. Total 184 ft. In quartzite. The 900 east drift from north drift from west drift has been extended 14 ft. Total 157 ft. In hard limestone of good quality. 900 rise from north-east drift from north drift (two months' work). Ore from the three small pipes found in rising here all removed, and two lateral exploratory drifts run in the limestone without further discoveries. The 1050 north-west drift from station has been extended 17 ft. Total 38 ft. In quartzite.

RIO GRANDE DO SUL GOLD.—Henry Eddy, Sept. 9: During the past week the rise in back of No. 2 gallery west has been advanced 1 metre, being 3·92 metres above the back of the level, this being only 1·5 metres from the bottom of the western shaft. We have bored a hole up for that distance, and very gradually let down the large quantity of water accumulated in all the adjacent workings. Next week we shall stope that ground through, and by the 23rd inst. the communication will be made complete for the whole length of the shaft. There is no material change in the lode since last week. In No. 2 gallery cross-cut, driving north-west, very good progress is being made. The protracted rains have debarred us from doing much in the open workings, but I expect to resume work on Meza's lode again very shortly.—Reduction Works: During the past week very little carriage of stuff could possibly be done on account of the bad state of the road. The site fixed for the new machinery being sent out is only 20 metres from the mouth of the deep adit, where we shall constantly have water for dressing purposes, and carriage will be merely a nominal item.

ROSS GOLD (Hokitika, New Zealand).—Sept. 4: Since writing you on Aug. 10 last the shaft has been sunk to a depth of 156 ft., where a layer of heavy wash was met with, with gold, but as the hydraulic machinery has now been landed, and the mechanics dispatched by the manufacturers are now on their way from Auckland to place it in position, we have been reluctantly obliged to suspend sinking in order to prepare the underground chamber for its reception; this work is estimated to occupy about three weeks, when the sinking of the shaft to the main bottom will be resumed. From the indications observed there is every reason to believe that we are on a fourth layer of wash dirt. The success of our company's operations has given rise to considerable excitement, no less than four large areas having been applied for on our boundaries.

RUBY AND DUNDERBERG CONSOLIDATED.—R. Rickard, Oct. 1: Dunderberg: The 800 ft. level still continues in very hard ground; progress this week, 5 ft.; total, 46 ft. from the shaft. The No. 8, above the 700, is very poor at present. At point B there is a large body of iron, with occasional bunches of good ore. There is no improvement at point C; we are following up a small seam of ore from 6 in. to 1 ft. in width. The south branch of the cave has been followed 18 ft. past the point of connection with No. 8 winze; this branch of the cave does not extend any further in this direction. The winze on the north branch of the cave is now down 50 ft. The cave at the bottom of the winze has narrowed down to about 18 in. in circumference. There are several small seams of ore making off at various points from the winze, which will be explored in due time. The intermediate drift from No. 8 winze, 40 ft. below the 700, has been advanced 10 ft. during the week. A small opening was encountered a few days ago, which has developed into a cave about 6 ft. wide and about 15 ft. in length. So far as explored the ore on the bottom is about 4 by 8 ft. of fair grade. This is the most promising looking place in the mine at present. The upraise at the end of the 300 is in very soft ground; progress this week, 35 ft.; total, 59 ft. above the 30. Have shipped 22 tons ore this week, and have 25 men, eight contractors, and nine tributers at work.—Home Ticket: There is quite an improvement in the ore body. The ore we are now extracting is of much better quality than heretofore. Have shipped 22 tons this week, and have six men at work.

— Oct. 4: I have just visited the mine, and the following is a report thereon:—The rise in back of the 300 west is being pushed vigorously; the ground is favourable for progress. I look upon this piece of work with great interest, as it is exploring new ground of great promise. The No. 8 stope, above the 700, is looking more promising than it was at my last visit. At two points where work is being done there appears to be good chances of finding ore in larger quantities. At present there is a large mass of low grade ore and iron, with bunches of good ore. The ore discovered below the 700 has been followed to a depth of 60 ft. below this level, where it terminates. At present we are following a nice seam of ore in the north-west, and is looking very favourable. This ground, around the No. 5 chamber and deep winze, is the most favourable find for ore in large quantities as I have seen in the mine. It is broken and full of natural caves, with some ore in all of them; but still we have not yet come on the main channel from where this ore comes from. I have great faith of finding a large ore body in the vicinity somewhere. Our object now is to follow up every indication, and endeavour to find it. Work in the bottom level will be suspended for the time being, until such time as we have sufficient funds. This level must be put out in the north-western some time. The Home Ticket is producing ore of better quality, and, according to the present outlook, it will pay more than expenses. When the rise in back of the 300 west is connected with the Home Ticket workings it will permit us to work much more economically, and avail ourselves of ore which will not pay under present circumstances. The prospects of the mine are still very encouraging, and I hope we shall find something more permanent shortly. The ore so far discovered has been very disappointing, as much to us here as the directors and shareholders.

STANDARD DIAMOND (Kimberley Mine).—F. B. Salomons, Sept. 23: We have had a rather heavy fall of reef on the east side, which has stopped our hauling since Wednesday last, but as soon as the loose pieces are trimmed off we shall start again. Our back claims are still free from reef, and we shall be able to haul some blue almost immediately. This fall is a great drawback, as until this happened the company's claims were never so clear of reef since the formation of the company. We have large quantities of blue on the floor; and I, with every appearance of rain, we hope yet to be able, in November, to declare a good dividend. We have shipped 1834½ carats diamonds. Week's report as follows:—Number of loads 16 cubic feet of reef hauled, 765¾; number of loads 16 cubic feet of blue hauled (three days), 2359; number of floor loads washed, 2465; 64½ carats diamonds found in claims; 1530½ carats diamonds found picking and breaking up. Total value of diamonds, 2800*l.*; value of reef hauled, 143*l.* 11s. 6d. Total of wages sheet, 1171*l.* 17s. 5d.

ST. JOHN DEL REY (Telegram from Morro Velho, dated Rio de Janiero, Oct. 23).—Produce 11 days, first division of October, 825° oits.; value 3196*l.*; yield 3·9 oits. per ton. Profit for the month of September, 1000*l.*

UNITED MEXICAN.—E. Hay, Guanaxuato, Sept. 22: Mine of San Cayetano de la Ovejera: After having traversed the castra in the winze of San Lazaro we cut another last week to the bajo; the inclination was natural, with two clearly defined walls at 8 centimetres distance from each other, running from south-east to north-west. Below this castra we have cut another without any appearance of ore, the underlie nearly vertical, and runs east and west. The breadth of the ore, of a fair class in the winze of Esperanza, increased to 35 centimetres on Sept. 13. Since then there has been less ore in this working, and what there is, is to the south in a ramification measuring about 30 centimetres in width. In the frente driven towards the castras of San Mateo there is very little ore. At the foot of the working the lode is 55 centimetres broad, and at the head 85 centimetres. We have begun working on the 5th castra that was traversed by the castra of San Mateo, and, therefore, we shall know very soon if the ore is going downwards. In the end of San Juan (the adit level) the ley of the ore has been decreasing, but the quantity has augmented and the final result has been good. As you will not receive the accounts for September until late in November, I state here that the two weeks' outlay on the mine of San Cayetano to Sept. 16, was $1774; and the outlay in the same time on the mine of Santa Monica, $299. The result for the fortnight will show an excess of returns on the new concern of $833. The good appearances of the end of San Juan and of the contracielo called Santa Rosa has continued. Last Friday a couple of men were sent to timber up a weak part of the roof, when suddenly it fell down and wounded badly one of the miners. Lots of loose stuff came down, and we had to stop working in San Juan and Santa Rosa for three days until a safe passage could be made through the rubbish. However, on Sept. 20, 23¾ cargas were sent to Duran; of which 13¾ cargas of best class ore assayed 23·70 marcs (about 130 ozs per ton), and 15¾ cargas of second class 10·45 marcs (about 57 ozs. per ton), both lots from San Juan; the remaining cargas of the first-class of Santa Rosa have not yet been assayed. I expect some more ore will be sent this afternoon to Duran. Though the ley of the ore diminishes, we may perhaps by an increasing quantity keep up the value of the returns. On Sept. 13 the lode in San Juan measured 85 centimetres, 40 centimetres of which were in good ore; in the following week in the middle of the frente, the ore measured 30 centimetres width towards the echado (dip of the lode), and in the upper part of the frente 40 centimetres. In the contracielo of Santa Rosa the lode widened to 75 centimetres on Sept. 13, but on Sept. 20, though the lode measured 1·60 metres, the ore had a breadth of 70 centimetres to the east and only 25 centimetres to the west. In this latter direction the ore is not so good as on the opposite side.

GAS SHARES.—The principal business in these shares, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, has been:—Bahia, 18¼ to 19; British, 36 to 36¼; Bombay (Limited), 6 15/16 to 6 7/8; Commercial, 200 to 205; Continental Union (Limited), 27½ to 27¾; ditto (1869 and 1872), 18½; European (Limited), 13¼; ditto (new), 8¼; Gas Light and Coke, A (ordinary), 177½ to 181¼; ditto, F, 5 per cent. (pref), 104; ditto H, 7 per cent., max., 135¾; ditto 4 per cent. Debenture Stock, 104; Imperial Continental, 197½ to 199½; London, 208 to 209½; Monte Video Gas, 15 to 15⅝; Oriental (Limited), 7⅜; Rio de Janerio (Limited), 22⅛ to 22⅝; South Metropolitan, A, 206½; ditto, B, 181½ to 184; ditto (Perpetual 5 per cent. Debenture Stock) 123.

INSURANCE SHARES have, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, been dealt in as follows:—Atlas, 18 to 18½; Indemnity Marine, 16 to 16⅞; Employers' Liability Association Company (Limited), 2⅞ to 2 15/16; Imperial Fire, 142 to 142½; Merchants Marine (Limited), 2; North British and Mercantile, 32; Standard Fire Office, 1 1/16 to 1¼.

TRAMWAYS.—The closing prices of this evening, as quoted by Mr. W. ABBOTT, of Tokenhouse-yard, are given in tabular form in the last page of the Journal.

RAILWAY AND GENERAL MARKETS.—Referring to the course of business done to-day during official hours (11 to 3) Mr. Ferdinand R. Kirk, Birchin-lane, writes:—*Opening:* There is a rise of ½ in Brush Light shares, and ¼ in Hammonds. American shares are most higher, Lake Shore and Wabash Preference having advanced 1¾. Unified are 72, showing no change. Brighton, A, have fallen ¾. South Caradon are quoted 2s to 3d, against the 18 to 20 current last week; few transactions, however, being visible. The recovery appears to have arisen from the idea that in the event of a new company being formed the assets of the old company may admit of a return something similar to the present quotation for the shares, which after all would not be much more than 15,000*l.* for the whole mine and machinery. Wheal Crebor, 3¾ to 3½; Organos, 2 to 2½; Sortridge, 6s. to 8s.; Prince of Wales, ⅜ to ½.——*Closing.*—The end of October settlement has now been concluded, and there are not many changes to record. Brighton, A, are lower at 115, Unified being 71¾, and Great Eastern 77½ to 77⅝. Atlantic Firsts are 59½ to 59⅝, the Seconds, 24¾ to 25¼, and Erics, 843, showing no alteration. Brush Lights maintain their recovery at 10⅞ to 10⅝, Hammonds being 5½ to 6.

MINING INSTITUTE OF SCOTLAND.—The monthly meeting of members was held on Thursday—Mr. J. S. Dixon (vice-President) in the chair. Mr. W. S. Russell (Kilmarnock) read a paper descriptive of a method of working splint coal by "back splinting." Discussions afterwards took place on Mr. M'Callum's (Niddrie) new signalling apparatus, and on Mr. Robson's paper on "Fire-damp Explosions."

Mining Correspondence.

BRITISH MINES.

ANDERTON TIN.—W. J. Bowhay, Oct. 25: We have no material change to report this week. The lode in character, size, and value continues as already reported—a large strong good lode. The water after these rains is very plentiful, and the stamps are kept in full work, and are beating out some capital work for tin. We are busy dressing our next parcel of tin for market, and shall have a good parcel very shortly. Our surface men are busily employed with dressing operations, and making satisfactory progress. Everything is going on well.

BEDFORD UNITED.—H. Trezise, Oct. 24: The ends on the north lode are without change. The tribute pitches continue to yield a fair quantity of ore, and the men are earning good wages.—M'Callan's Engine-Shaft Bridge Lode: The shaft is down 5 fms. below the 42, and the men are making good progress in sinking; the lode is 6 ft. wide of a very promising character, composed of peach, prian, mundic, and some good quality grey ore. The 42 west is without change. In the same level east the drivage is continued by the side of the lode, and good progress is being made. The lode in the 30 east is 3 ft. wide and very promising; it will produce 1 ton of ore and 2 tons of mundic per fathom. The winze sinking below the 30 is worth 13*l.* per fathom. The stopes are without change. The lode on the 20 east is more promising. We have ready to sample about 115 tons of ore, and 150 tons of mundic for sale. The work of the mine is progressing satisfactorily.

BLUE HILLS.—S. Bennetts, R. Harris, Oct. 25: The rise in back of the 80 east is worth 10*l.* per fathom. There is no change to notice in the Blue Burrow shaft. The 40 east end is worth 6*l.* per fathom, and the 30 east end 7*l.* per fm. The Gumpas adit, west end, is at present unproductive.

BRADA (Isle of Man).—R. Rowe, Oct. 25: In Prior's end south the week has mostly been occupied in drawing the copper stuff from the end and laying fresh tramway close up to the end in which the lode continues to be large and good for ore. The cross-cut going through the Bulwark lode is now into some good lead besides copper. In the 40 end driving south the lode is from 4 to 5 ft. wide, worth about 2 tons of good copper ore per fathom. We are making good progress with the dressing machinery, and shall soon have all at work.

BWLCH UNITED.—W. Northey, Oct. 26: The lode in the 12 east under adit is about 18 in. wide, composed of light blue killas, quartz, and blende, mixed with lead ore of a most promising appearance for an early improvement. The three stopes in back of the 30 will yield their usual quantities of ore—No. 1, 10 cwts.; No. 2, 22 cwts.; and No. 3, 18 cwts. of silver-lead ore per fathom. In the cross-cut north, at the 50, small branches of carbonate of lime and quartz are met with daily, and the stratum is more congenial for producing lead ore; the stope in back of same will yield from 18 cwts. to 1 ton of silver-lead ore per fathom. The lode at the 100 west is about 18 in. wide, producing good specimens of silver-lead ore of a very encouraging character; the stope in back of the 15 on Marvin's lode will yield about 10 cwts. of silver-lead ore per fathom. The machinery throughout the mine is in good order and working well. Dressing is carried on in a spirited manner, and I intend to sample another parcel of lead ore on the 30th inst.

CARN CAMBORNE.—W. Vivian, Oct. 26: We have still very encouraging appearances in the 95, west of sump, on south lode; the horse of granite which has split the lode into two parts is dying out, so there seems every prospect of there being in driving a short distance further, a junction forming one compact lode. The south branch is now the larger part, and is composed of soft spar, impregnated with yellow copper ore, with large cavities or vughs opening through it. All these features are considered by practical miners to be highly favourable indications. I am of the opinion that this level is on the top of a great and valuable deposit of metals, and that we must make early preparations for sinking the sump. There is nothing new to refer to at the other points of operation.

CARNARVONSHIRE GREAT CONSOLS.—W. H. Borlase, Oct. 26: There being no material change in the bargains I have nothing new to report this week. The whole of the machinery is working well, and the dressing department is carried on regularly.

CARNARVON COPPER.—J. Roberts, Oct. 25: The end driving west from the bottom of the sump at the 80 appears to have reached the extent of this run of ore. In the bottom the lode is worth about 1½ ton of ore to the fathom. We purpose sinking further on the ore, but the men have as yet refused the price we have offered. The cross-cut at the 70, at Garnon's, is without any change. This is set to two men, at 7*l.* per fathom. All the pitches are much the same value as they have been and are set at the former prices. We shall load away the copper as soon as we can get railway trucks.

CATHEDRAL CONSOLS.—S. Davey, S. Davey, jun., Oct. 26: Engine-Shaft: The lode in this shaft sinking below the 60 is 3 ft. wide, composed of quartz, fluor-spar, and peach, with black, grey, and yellow copper ore interspersed throughout, worth from 1 to 1½ ton to the fathom; the shaft is now down 9½ fathoms below the 6d, and good progress is still being made. The lode in the 60, driving east, is 2½ ft. wide, producing a little black and grey copper ore; we advise that this end be extended east as rapidly as possible to reach the elvan course, in which large deposits of copper have been found at and below the 60 in this district.—Laury's Shaft: Since last report little has been done in the 10 east; the men have been employed securing a break down in the eastern adit, which is now near completion, when we shall put the men to sink a winze below the 10. Finding the level is not continued, but the lode taken away by tributers, the object in sinking the winze is to find if possible a way into the old mine at a deeper point.

D'ERESBY MOUNTAIN.—J. Roberts, Wm. Sandoe, Oct. 25: The rise at the No. 5 continues to keep its value as formerly reported, worth about 4 tons of lead per fathom; this is now within 1 fm. of the No. 5 proper, where the cross-cut from the hanging side is driven to within 2½ fms. to reaching it. This cross-cut is being driven by four men, at 7*l.* per fathom, a much lower price than we anticipated having it driven for, and we expect to communicate the two places by the end of the month. The stopes are without any change either one way or the other.

DEVON GREAT CONSOLS.—Isaac Richards, Oct. 26:—Wheal Josiah: In the 144, east of the Count-house shaft, the lode is 5 ft. wide, composed principally of capel and quartz, with small quantities of copper and mundic ores.—Wheal Emma, Inclined Shaft: In the 137 east, east of Friend's cross-cut, the part of the lode carrying, 2 ft. wide, is of a promising character, and yielding some copper ore of good quality, and 2 tons of mundic per fathom.—New Shaft, New South Lode: In the 115 east the lode, part carrying, 3 ft. wide, is composed of capel, quartz, peach, fluor, with good stones of copper ore, and 3 tons of mundic per fathom.—Railway Shaft: In the 190 west the lode is 5½ ft. wide and of a very promising character, and yields 3*l.* worth of copper ore and 2 tons of mundic per fathom. In the 160 west the lode is 3 ft. wide, composed of capel and quartz, with a small quantity of copper ore and stones of arsenical mundic of very good quality.—Watson's: The cutting of plat at the 100, in the engine-shaft, is proceeding very satisfactorily. In the western shaft, sinking below the 20, fair progress is being made, the ground continuing of a favourable character. In the 20, east of the western shaft, the lode is 2 ft. wide, of a promising character, and yielding small quantities of copper and mundic ores.

DEVON GREAT UNITED.—I. Richards, Oct. 26: In the 120 east level, east of Willesford's shaft, the lode is 2 ft. wide, composed of capel, quartz, and small quantities of copper and mundic ores; the distance driven during the past week is 2 ft. In the 120, west of Willesford's shaft, the lode is 2½ ft. wide, composed of capel, quartz, mundic, and a little copper ore; the distance driven during the past week is 1 ft. 6 in. In the cross-cut north at the 60, on the middle lode, west of Watson's shaft, the ground is much the same as last reported—rather unfavourable for progress; the distance driven during the past week is 5½ ft. We have resumed driving the cross-cut south at the 60, west of Watson's shaft, on the middle lode, by the use of rock-drill machinery, and have driven 1 fathom, the ground proving tolerably favourable for progress. In the 60, west of Watson's shaft, on the Capel Tor lode, the lode is 2½ ft. wide, composed principally of capel and quartz, with small quantities of copper and mundic ores.

DRAKEWALLS UNITED.—M. Bawden: The rock-drill is doing good work in driving the deep adit level, west of engine-shaft, but the ground has become harder both here and in the same level, driving east of Brenton's shaft. We shall, however, make every effort possible to complete the work by the end of this year. The south branches both in the 20 and 40, west of engine-shaft, are producing paying work for tin, as are also the pitches and stopes throughout the mines. We shall early in next week sell another parcel of black tin of good quality. The covering of the stamps is being proceeded with as fast as possible, and all the material is on the mine to complete the work. Considerable alterations and repairs are being carried out on the tin dressing-floors, the whole having gone sadly out of order during the time it was not in use.

EAST BLUE HILLS.—S. Bennetts, W. H. Mitchell, Oct. 25: The lode in the adit east end is again improving, the parts drawing nearer each other containing three distinct leaders of tinstuff, together 2½ ft. wide, and worth 7*l.* to 8*l.* per fathom, altogether a most promising lode. The 40 east end, however, is still unproductive, and the lode small. To-day or to-morrow morning we hope to set several of the heads of the new stamps at work to make the bed, &c. All the others are in full swing just now, with an abundance of water.

EAST BOTALLACK.—John Hollow, G. H. Eustice, Oct. 26: We are pushing on with the 35 as fast as possible, and hope soon to reach the ore ground found in the level above. In clearing up the shaft on the south lode, close to Balleswidden, we are pleased to report that we have found some good stones of tin, which look very promising. We have now come down on the back of the adit level, but the water is up within 2 ft. of the back of the level, and we cannot, therefore, get into it. We now propose to clear the adit and let the water down, when we have no doubt we shall find the lode standing whole.

EAST CARADON.—Wm. George, John Kellow, Oct. 24: We beg to hand you the following report of our setting on Saturday last:—To drive the 150, east on caunter lode as per bargain, by nine men, at 11*l.* 10*s.* per fathom. There is no change in the lode to notice since we reported for the meeting. To drive the 130 cross-cut, south from Child's lode, by four men 2 fms. stent, or the month at 10*l.* per fathom. We consider the present appearances of this end indicate a favourable change. To stope the bottom of the 100, west on Child's lode, by two men, stent the month, at 2*l.* 10*s.* The lode is 1½ ft. wide, yielding 1 ton of ore per fathom. To drive the 90 west on Child's lode, by six men, 3 fms. stent, at 6*l.* Here the lode is full 2 ft. wide, and worth 1½ ton of ore per fathom. There are also four pitches set to eight men, at tributes varying from 11*s.* to 13*s.* 4*d.* in 1*l.* Every effort is being made to urge on the above bargains as fast as possible, with the full expectation that an improvement will shortly be met with.

EAST CHIVERTON.—R. Southey, Oct. 25: Since my last report, a fortnight since, good progress has been made in driving the 100 end west of the engine-shaft; the lode is much the same as when last reported on, yielding some rich work for silver-lead, but we have not yet driven far enough to reach the main bunch of ore gone down in bottom of the 90. Judging from the present appearance of the lode in the end, I have every reason to hope a good lode will be met with at that point. We are pushing the end forward by six men; price for driving, 4*l.* 15*s.* per fm. We are also making good progress in the rise behind the end, and hope to get this communicated to the 90 before our next general meeting. No change to notice in the lode in this rise, which is worth about 6 cwts. of lead per fm. At surface the large pieces of castings to the steam-whim are in their places, and the masons enclosing around the boiler, which will be completed, excepting the flues, this week.

EAST LONG RAKE.—H. B. Vercoe, Oct. 26: There is not much change to report in the mine since my last. The lode in the stope in the sole of the 50 west is about 2 ft. wide, producing saving stuff for washing, and may be valued at 12 cwts. of lead per fathom. In the rise in roof of the 50 west the lode is changeable, at times it produces fairly well and at other times not so well, on an average we are getting about ⅓ ton of lead per fathom. The men working on tribute on the shallow flat are raising orestuff of fair quality, and I hope to get some of their stuff dressed in time for the next sampling.

EAST ROMAN GRAVELS.—Arthur Waters Oct. 26: The winze in the 97, on the junction of the two divisions of the lode, is down 4 fms. 2 ft.; the lode is 5 ft. wide, yielding stones of lead ore. There is a great quantity of water here, which makes against pregress. The lode in the 97 rise, against No. 2 winze, is worth ½ ton of lead ore per fm. The winze in question below the 86 will be holed to the rise in about 7 ft. further sinking; lode worth 8 cwts. per fm. The two stopes in bottom of the 86, adjoining said winze, are together worth about 1 ton per fathom.

EAST TREGEMBO.—Ed. Ohegwin, Oct. 23: The adit end driving north, west of the Ten o'Clock lode, still continues very rich for tin, is about 2 ft. wide, and worth about 25*l.* per fathom. There is a large stream of water coming from the lode, and we believe we are very near one of our main east and west lodes. Owing to incessant rains, the slime has choked one of the adit shafts, which will take about this week to clear.

GAWTON.—G. Rowe, G. Rowe, jun., Oct. 21: The lode in the 117 east is carried 7 ft. wide, yielding 15 tons of mundic and copper ore per fathom. The lode in No. 1 stope in the back of this level (the 117) is yielding 9 tons of mundic and ore per fathom. The No. 2 stope in the back of the same level is worth 20 tons of mundic and ore per fathom. The lode in the rise going up in the back of the 105 is producing 10 tons of mundic per fathom. The lode in the stope in the back of the same level (105) is worth 12 tons of mundic per fm. The lode in the 82 cross-cut south is producing fine rocks of arsenical mundic, spotted with copper ore. The lode in the Nos. 1 and 2 stopes in the back of the 70, east of cross-cut, is yielding 10 tons of mundic per fathom. All other points are without change.

GLASGOW CARADON.—Wm. Taylor, Wm. J. Taylor, Oct. 23: South Lode: The 114 east is worth 5*l.* per fathom; lode more settled, and likely soon to improve. No change in 114 west; stopes in the back of this level on this lode worth 10*l.* and 15*l.* per fathom.—Harvey's Lode; The 114 west is further improved, now worth from 18*l.* to 20*l.* per fathom; a fine lode in easy ground. We are pushing this as fast as possible towards the winze sunk in the bottom of the 102, in a lode worth about 15*l.* per fathom. The 114 east on this lode is producing some good ore, but is not yet out of the influence of the cross-course; no change to notice in the 102 west. Stopes in the back of this level about the same as last reported, worth about 12*l.* per fathom each. The 90 west is worth 6*l.* per fm., ground favourable for producing more ore. The 90 west, north lode, is producing ore, but not of much value yet. Stopes in the back in advance of this end worth 5*l.* and 15*l.* per fathom respectively. There is no change to notice in the tribute pitches, producing about their usual quantities of ore.

GODDARD'S LEAD.—R. H. Vivian, Oct. 26: I wrote you on Friday last informing you of a great improvement in our lode. We have been breaking the best rocks of lead ore I have ever seen in the mine, which is now looking remarkably well.

GOODEVERE.—R. Knott, Oct. 25: During the past week the heavy floods have very much interfered with the progress of our work, both at surface and also at the engine-shaft; we are, however, pressing forward, and I hope the work we have in hand at the shaft above referred to will be complete by the end of the week. The bottom end east of Higher shaft is looking very promising indeed. Since my last I have broken some good samples of tin from this end; lode from 3 to 4 ft. wide, with tin throughout. In the stope in back of this level the lode is 2½ ft. wide, producing tin. In the stope in bottom of drivage west the lode is from 2 to 3 ft. wide, producing stamping work.

GREAT HOLWAY.—W. T. Harris, Oct. 26: I beg to say the various points throughout the mine are in every particular quite equal in prospect and value reported last week. At Partridge shaft an improvement has taken place in the tribute pitch in the 95. We shall be better able to give its produce, and what it is likely to do, in my next. Eyton's prospects have also improved. Surface work and dressing are making good progress.

GREAT LAXEY.—F. Reddicliffe, Oct. 25: The lode is coming a little more into shaft in sinking the Welsh below the 259, and for the part carried is producing about 2 tons of blende per fathom at present. The 259 end north is also looking likely to improve. We shall commence to drive at the same level south from shaft this week. This driving being now taken up should be prosecuted by rock-drills as soon as practicable. The 247 end is worth 12*l.* to 15*l.* per fm., but in the 235 end the lode has been thrown somewhat by a small slide, and the end is not yet fairly upon it again. There is no alteration in the appearance of the lode in the 230 north in Dumbell's, but in the 215 end there is a very good lode, worth fully 50*l.* per fathom. The 200 end is not so good as last reported, being now worth about 30*l.* per fathom. The rise over the 110, in the middle ground, is now up high enough for the 70 coming south from Dumbell's, and driving at the top, just now started, towards that level. The ground in the top of the rise is worth about 16*l.* per fathom; but the 70 end, which is some 30 fms. from it, is quite unproductive if all the lode is seen, which when fully developed may prove not to be the case. The 60 end north is in contact with a small slide, and the value at present cannot be exactly given, but up to it it has continued a very good lode. I have not referred to the stopes, as there is no very appreciable change in value, taking one with another, since our detailed report.

GREAT WEST CHIVERTON.—John Curtis, Oct. 25: Watson's engine-shaft is now 3 fms. below the deep adit, we have set 7 fms. to sink to nine men, at 9*l.* per fathom; lode 2 ft. wide, of a kindly appearance for producing mineral, and calculate to reach the 10 fm. level within six week from this date. The engine is working well, quite to our satisfaction.

GREEN HURTH.—Jas. Polglase, Oct. 20: The 44 fm. level north is worth 3 tons of ore per fathom. The south 44 end is in easier ground, worth 2 tons of ore per fathom. The stope in bottom of Standage level is worth 5 tons per fm. Stope in the back of Standage level is worth 5 tons per fathom. The stope, north of Vipond's sump, in the back of the Standage level is worked out. We shall commence a cross-cut east from the Standage level on Monday. This cross-cut has been looked forward to for a considerable time. The prospects are remarkably good, and will, no doubt, enhance the value of the property greatly. The stopes in the back of the 30, Nos. 3, 4, 5, are at present being filled; this being done will help us considerably. The west branch in the back of the 30 is yielding about 8 cwts. of lead per fathom. The rise in the back of the 30 is wet and troublesome. No. 4 vein continues about the same. I am pleased to state that the heavy expenditure, in the erection of new engine, water-wheel, rods, &c., will shortly cease, and our costs will be greatly reduced. The benefit of the large outlay will tell greatly in favour of the company in the future. Dressing going on well.

HEALEYFIELD.—Oct. 20, J. Trelease: The various stopes in the mine working on tribute continue of the same value as for some time past. Foster's stope on east strings has rather improved. I have cut his tribute to 45s. a bing. The foremost stope south on main lode still yields about 15 cwts. of lead per fathom. There is rather more barytes putting in appearance in the north end. All our tutwork bargains are moving ahead. I have set to all the bargain men this week, prices ranging from 40s. to 110s. per fathom. We are trying our best to get forward as much lead ore as we did last sampling for the two months, notwithstanding the long delay with our machinery, and I hope we shall accomplish our aim. Another wood cottage has arrived this week; this is the fifth that has arrived. Our machinery is going on well at present.

HERODSFOOT.—Oct. 25: The 160 north is still worth from 30 to 40 cwts. of rich ore per fathom, and, judging from the general character of the lode in sinking, our opinion is strengthened that we have in this part of the mine a very rich body of ore, which has, on account of having been allowed to remain dormant for many years, suffered an undeserved fate at the hands of former management. We are pushing on the clearing of the next (the 175) level, retimbering same, laying down tramroad, &c., and hope to shortly reach its farthest point of progress, when driving will be recommenced towards the rich ore gone down in the bottom of the 160. We cannot have many fathoms to drive before being into it; when this important work is done a rise will be at once commenced from the back of the 190 for good ventilation, fully effective stoping, and affording such facilities for working as will ensure larger quantities of ore being got, and at a much less cost. The two stopes over the 160 are still yielding from 15 to 18 cwts. of ore per fathom each. The lode in the 160 south, on the western part of the lode, is worth 10 cwts. of ore per fathom. The stopes in the back of the 215 south are as yet without any change deserving notice. The lode in the 215 south is producing about 15 cwts. of ore per fathom. The lode in the winzes sinking below the 205—about 25 fms. in advance of the 215 south—is worth from 15 to 18 cwts. of ore per fathom. This being so is, in our opinion, conclusive proof that we have an extensive run of rich ore ground available in this part of our mine for increasing future returns. The important 160 fm. level discovery, holding so good, should indeed set a much higher value on our mine, being by far its best discovery for many years; therefore, why Herodsfoot shares are so low is surprising and unaccountable. The mine has not looked anything like so well, as now since the commencement of the operations by our present company.

HINGSTON DOWN.—Thomas Richards, Oct. 25: The engine-shaft is down 12 fms. 4 ft. 7 in. below the 25; 3 ft. 6 in. have been sunk during the past week by nine men, and good progress continues to be made. The 25 east by six men has been driven 3 ft. 5 in.; total distance from the shaft 29 fms. 4 ft. The lode contains quartz, mundic, capel, peach, &c., and a little rich copper ore. The cross-cut at the 25, east of the shaft, towards the No. 2 lode, has been extended 3 ft. 6 in. and fair progress is still being made. The 12 east, by four men, has been driven 2 ft. 7 in.; total distance from the shaft 49 fms. 4 ft. 2 in. The lode contains capel, quartz, mundic, &c., and in places a little rich copper ore, and is, on the whole, more promising. The deep adit cross-cut, by four men, has been extended 3 ft. 3 in.; the ground is without any material change. Total distance, south of No. 2 lode, 29 fms. 3 ft. 5 in.

INDIAN QUEENS CONSOLS (Trevarren United Mines).—W. H. Bullock, Oct. 13: With regard to the mines, and especially the Parka Mines Consols, I beg to say that since my return from North Carolina I have been on the mine, and am happy to inform you that all my reports respecting the future or the ultimate result of this property, have turned up to the very letter. I was always convinced, from my long experience of mining in this district, that there was certainly a successful future for this mine, and it will be found that all my reports on it are to this effect. I am at this moment fully convinced by sinking a new engine-shaft in such a position as to command the whole of the property, and put the present one for stamping and winding purposes, that there is a great future for this mine. There are to my knowledge seven lodes in this property, and I have myself broken good work from each, but they are only at present working one—Neil's north and south lode, which is yielding more than sufficient tin to meet the costs; and, again, the greatest feature to my mind is that the present Neil's lode is increasing in size and quality as it goes down. Thus, as regards the amalgamation system working the whole as one property—Indian Queens, Parka Mines, and Gower Consols (Limited) under the heading of the Trevarren United Mines (Limited), I was always in favour of this undertaking, believing, as I do, that the whole of this run of ground is the same strata, the result of the same geological action, and certainly the same class of tin. I should highly recommend that a large size engine be erected in the centre of the property, which will drain the whole of this rich tin-bearing sett, and appropriate the present engine for stamping and winding purposes. This being done I have not the least doubt but that the whole thing would turn up a rich and lasting property.

KIT HILL GREAT CONSOLS.—I. Rickards, Oct. 26: In the tunnel level the ground consists of granite of a hard nature, consequently the progress is not so good; the distance driven during the past week is 1 fm. 4 ft. In the 75, west of the north engine-shaft, the lode is 3 ft. wide, composed of capel and quartz, with a little mundic and tin ores; this drivage will now be suspended to admit of plat being cut in this level, preparatory to further deeper sinking of the shaft, which will be got on with as fast as possible—the distance driven during the past week is 5 ft. In Griffin's winze, in bottom of the 62 west, the lode is 3 ft. wide, composed of capel and quartz, with peach, mundic, and a little tin ore; the distance sunk during the past week is 5 ft. In Griffin's winze, in the bottom of the 62 west, the lode is 3 ft. wide, composed of capel and quartz, with peach mundic, and a little tin ore; the distance sunk during the past week is 1½ ft. In the 62 east the lode is 2 ft. wide, composed of capel and quartz, with small quantities of mundic and tin ore; the distance driven during the past week is 2½ ft. In the 48 west the lode is 3 ft. wide, composed principally of capel and quartz; the distance driven during the past week is 4 fms. 3 ft. In the 48 east the lode is 4 ft. wide, of a promising character, and yielding a little tin ore; the distance driven during the past week is 1½ ft. The machinery throughout the mine is in good condition, and working well.

LANGFORD.—R. Goldsworthy, Oct. 25: We are making good progress in forking the water. The drop-lift was sent down 8 fathoms, where we found there was a choke in the shaft. The water is drained down to that point, and from what can be seen I think the choke is just at the bottom of the downright, and where the shaft took the lode. I hope to give you full information on this in my next. The men are now engaged in clearing the choke, which I hope to get sufficiently done to enable us to drop again in the early part of the coming week.

MELLANEAR.—W. R. Toms, Samuel Harris, Oct. 25: There is no change in the 30 cross-cut driving south of Gundry's shaft since last reported. The ground in the 70 cross-cut, driving north from the main lode, is highly mineralised, being intermixed with small veins of spar, mundic, and spots of copper ore, and we are expecting to meet with the lode very soon. In the 90, driving west of Gundry's shaft, the south part of the lode is 6 ft. wide, yielding 2½ tons of ore per fathom. The winze sinking in the bottom of this level is yielding 4½ tons of ore per fathom. The lode in the 100, west of shaft, is 6 ft. wide, yielding 1½ ton of ore per fathom, is masterly in appearance, and of a promising character. The winze in the bottom of this level, east of shaft, is yielding 1 ton of ore per fathom. The lode in the 110, east of shaft, is 5 ft. wide, yielding 1½ ton of ore per fathom. The lode in the 110, west of shaft, is 5 ft. wide, yielding 2 tons of ore per fathom, with every indication for further improvement. The part of the lode carrying in the 120, east of shaft, is 5 ft. wide, and yielding ½ ton of ore per fathom; the ground still continues hard and spare for driving; but, judging from the level above, we may reasonably expect it ought to improve very soon. The rise in the back of this level is yielding 1½ ton of ore per fathom. The lode in the 90, east of old engine-shaft, is 3½ ft. wide, yielding good stones of ore. In the 110, east of shaft, the lode is 2½ ft. wide, yielding occasional stones of tin, and looking more promising in appearance. The lode in the 110, west of shaft, is 3 ft. wide, and presents a more favourable indication for the production of mineral as we get near the run of ore ground down in the level below. The stopes throughout the mine are yielding their usual quantities of copper ore.

MID-DEVON.—J. O'Neill, Oct. 21: A Shaft: Water in fork to bottom of the 80; machinery doing good duty.—C Shaft: Stope in back of the 45 east worked by eight men and two boys. The yield of ore from this point has fallen off considerably this week, caused by the intersection of a small cross-course in the western end of stope, which has disordered the lode in that direction. From the underlie and bearing of the strata I think the ore-bearing run has shifted north, and have part of the men working in that direction, where the strata is exceedingly congenial, being intermixed with chlorite, hornblende, friable garnet, and a little black and yellow ore. All the joints and fissures are strongly coated with copper ore; from this and general features I regard the change as being temporary. I have seen from similar causes in this lode a corresponding decline in the yield of ore, and in a week or two, and in some cases a few days, it has increased again as quickly as it fell off. The driving of the 50 east will be resumed again on Monday.—Surface, Rock Drill Wheal Pit: The necessary excavations are now completed, and shall on Monday lay out foundation for masonry. Trust we shall get favourable weather to push it forward.

MOUNT CARBIS.—G. Johns, Oct. 26: The lode in the 50 north, although of large size—18 ft. wide, is contained within well-defined walls, and is worth 50*l.* per fathom, both east and west of the cross-cut. The lode in the 38 north is worth 25*l.* per fathom. The south lode in the 38 east rise is worth 10*l.* per fm. The men in the 27 west, on south lode, are set to put up a rise to open the tin-ground for stoping, and the lode is worth 10*l.* per fathom.

MYNYDD GORDDU.—Thomas Kemp, Oct. 25: The part of the lode opened on by the 46 end, west of cross-cut, has not undergone any change to notice since last week's report, and for the width carried (5 ft.) is composed of killas and quartz of a dark brown gossan nature, intermixed with mundic and silver-lead ore—a very fine looking point, and should give better results. The part of the lode carried by the 46 end, east of cross-cut, is composed of killas, calcspar, and quartz, and carrying a little mundic, in ground favourable for opening. To the west of No. 1 cross-cut from the main level (the 46) I have for the present put the men to rise in and stope the lode over the roof of this level; lode worth from 8*l.* to 10*l.* per fathom. This point is under No. 1 stope from the 34, which stope is for the present suspended. All the bargains are about the same in value as last reported. Machinery in good order.

NEW KITTY.—W. Vivian, Oct. 26: The engine-shaft is now 12 fms. below the 36 fm. level; I purpose to continue the sinking of the shaft to the 50 fm. level below the adit.—Thomas's Shaft: We are clearing and timbering this shaft. When clear I purpose to sink on the course of the West Kitty lode.

NEW TERRAS.—T. R. Pryor, Oct. 26: We have made good progress since my last report, having cleared into the winze, which I have minutely inspected and broken stuff from different parts of the lode, which I consider to be a fair average of the same, and find it to be very productive for tin, which is of a very superior quality. We are making good progress with the sinking of the engine-shaft, and when we communicate with adit we shall cut plat and lay down tramway into the great stope, when we shall be in a position to bring hundreds of tons of tinstuff to surface, and meanwhile shall be erecting the necessary machinery. The necessary buildings are completed.

NEW WEST CARADON.—N. Richards, Oct. 25: A stope in the back of the 30, on the main lode, will yield from 1 to 1½ ton of copper ore per fathom. A winze sinking on this lode, in the bottom of the 55, will yield 1 ton of ore per fathom. The lode last intersected in the 38 cross-cut, south of Hallett's shaft, and on which we are now driving east of same, is about 20 in. wide, with two good walls producing some rich stones of grey, black, and yellow copper ore; a very pretty looking lode. We are almost daily expecting an improvement here. There is nothing new in the cross-cut driving south at this level.

NORTH BLUE HILLS.—S. Bennetts, Oct. 25: I enclose a tracing of this mine sett as per map, showing the probable position of the Baldhu lode, both in the adit level (as estimated from its course in the East Blue Hills) and in the 30 fm. level below, as estimated from its course for over ¼ mile in the Penhalls and Blue Hills Mines. The great difference is owing to the many faults existing between those levels, each fault moving the lode still further to the north. The lode in which the adit level is driven has not thus far shown any similarity to the Baldhu lode, and is probably to the north of that lode.

NORTH BUSY.—Oct. 26: We have increased water at the 30 east, and lode now improving. No other change.

NORTH GREEN HURTH.—J. Polglase, Oct. 20: The air-pipes are fixed in the deep level cross-cut. The ground is very wet in the end; no other change. Driving south is resumed from the deep adit; ground favourable. The south drive from the shallow level cross-cut is about the same.

NORTH HERODSFOOT.—T. Trelease, Oct. 26: The lode in the 117 end is now about 1 ft. 6 in. wide, composed principally of quartz, intermixed with mundic and lead ores, which we are saving for the floors. The water has again increased this week, and I find it has drained the 80 of fully one-half of the water that formerly came out of that level, which proves that there is a porous lode between the two levels. We have commenced to sink in the bottom of this level, where the lode is worth 9 cwts. of ore per fathom; and the stope in the back is yielding 7 cwt. of ore per fathom.

NORTH PENSTRUTHAL.—S. Davey, Wm. Polkinghorne, Oct. 25: Highburrow Shaft: Since last report we have put in the bearers and cistern, fixed the drawing-lift at the 132, and brought all surplus water to the same, put in penthouse, and all necessary timber for the safety of the workmen; the sinking will be pushed on as expeditiously as possible. The lode in the 132, driving east, is 3 ft. wide, producing a small percentage of both tin, copper, and mundic. The same remarks will also apply to the west end. The lode in the 120, driving west of shaft, is 5 ft. wide, and worth for tin about 6*l.* per fathom, and from the south or footwall part we find occasionally good stones of yellow copper ore. The lode in the winze sinking under the 88 is unproductive. There is no change to report in the 58 cross-cut north.

OKEL TOR.—H. Bulford, J. Rodda, Oct. 26: We continue to make good progress in cutting down the new shaft east below the 30. The lode in the 50, east of the new shaft, is 4½ ft. wide, of a very promising character, and is producing a small quantity of mundic and copper ore. The lode in the winze sinking below the 50 is 5 ft. wide, and producing 13 tons of arsenical ore per fathom. The stopes in the back of the 50 on the intermediate lode are yielding 8 tons of arsenical ore per fathom. The 65 stopes in the western part of the mine are producing 14 tons of arsenical ore per fathom; and the 35 stopes are producing 12 tons of arsenical ore per fathom.

OLD GUNNISLAKE.—W. Skewis, R. C. Seccombe, Oct. 26: Since reporting on the 24th inst. we are pleased to inform you that we have cut into the great cross-course, and shall press on with every dispatch the intersect the Bonney lode west of it.

OLD GUNNISLAKE.—W. Skewis, R. C. Seccombe, Oct. 24: We are making our usual progress with the adit level west. The lode is from 1½ to 2 ft. wide, of a most congenial character, being composed of quartz, fluorspar, arsenical mundic, and stones of good quality ore. We have not yet intersected the great cross course.

PARYS COPPER.—T. Mitchell, Oct. 24: The 65, east of cross-course, continues to look much the same as when reported last week, producing good patches of copper ore, and the ground is of a very promising nature. The surface trial is producing a little copper ore of good quality, and looks very promising, considering it is so near the surface.

PELYN WOOD.—T. H. Bennett, Oct. 25: We have intersected one of the east and west lodes in the adit, and have opened upon it about 5 ft. The size as far as seen is about 18 in. wide, and has a kindly appearance. The underlie is about 2 ft. in a fathom, and I am glad to say the footwall is well defined, carrying gossan and quartz mixed with mundic and copper ore. When further opened upon (in the course of a week or two) I hope the lode will speak for itself.

PENHALLS.—S. Bennetts, J. Goyne, Oct. 25: The lode in the 60 west is 2 ft. wide, and worth 8*l.* per fathom. The 70 east end is producing some low quality tinstuff. In the 60 north there is no change to notice. The 60 east is worth 6*l.* per fathom. On the north lode the 40 west end has slightly improved, and is now worth from 55*l.* to 60*l.* per fathom. The winze below the 30 is worth 10*l.* per fathom.

POLCREBO.—W. H. Martin, Oct. 25: In the engine-shaft we have lowered the lift 6 fms. 3 ft. below the 17, and put in iron rods from the adit to the 17, and now forking with good speed; the men are in the midst of dropping ladders under the 17. From information received the late company did not clear up the engine-shaft to the 30, therefore we have several fathoms of stuff to clear before we reach the bottom of the shaft, but no time will be lost in having it cleared. I purpose to draw the stuff from the shaft with the horse-whim kibble. The former operations were principally confined to the 17 east, where they raised a large amount of tin from the levels and backs. By clearing the shaft and driving the 30 east we shall open up a long run of profitable tin ground which is standing in the bottom of the 17. In the north level at the 17 west the men are still dessing the lode; to-morrow we shall commence to take it down. On Sun-

day the collar of one of the adit shafts crushed and filled the shaft for several fathoms, and dammed back the water in Highburrow shaft, but we have cleared the choke from the adit and secured it with timber and let off the water.

POLROSE.—W. Bennetts, Oct. 26: Since my last report we have met with a large stream of water issuing from the lode in the 112 east. This, with the increase of water from the late heavy rains, has delayed our progress. The lode in the 112 east is still of the same value, but is looking more promising for an early improvement.

PRINCE OF WALES.—S. Roberts, Oct. 25: The lode in the 102 cast is 4 ft. wide, worth 12*l.* per fathom for tin and copper ores. The 102 west is without change since last week. In the 90 end west the men are taking down the lode, which is 1½ ft. wide, producing a little tin and copper ores, a very kindly lode. Stope in back of 90 west, lode 3 ft. wide, worth 10*l.* per fathom for tin and copper. Tribute pitch in back of this level is not quite so good as it was. The lode in No. 4 stope in back of the 90 east is 3 ft. wide, worth 10*l.* per fathom for tin. Other points in operation the same as last week.

ROMAN GRAVELS.—A. Waters and Son, Oct. 26: No material change here to notice since the date of the general meeting. The mine is looking very well, and we have to-day sampled 300 tons of lead ore for sale on Thursday next.

RUSSELL UNITED.—John Bray, Oct. 26: We are driving by the side of the lode this week, east of the cross-cut, in the 97, but shall take it down in time for the meeting, on Monday next, when I hope to give a good report. There is no improvement in any other part of the mine since last report.

SILVER HILL.—G. Rickard, Oct. 26: I have been looking forward daily to be in a position to advise you of cutting the Good Luck lode in the tunnel level cross-cut. We have driven 2 fms. 5 ft. 6 in. since last report. The ground is still highly mineralised, and the water is increasing in quantity as we proceed with the driving. We cannot now be far off the lode, as the water has made its appearance again after passing through several fathoms of dry ground. We have thoroughly secured the rise of Wheal Brothers lode, and we are working upon a very promising lode, composed of white iron, soft quartz, with flookan and sulphurous mundic, intermixed with some visible silver in the white iron. The lodestuff is being saved for treatment by reduction works.

SORTRIDGE COPPER.—Wm. Skewis, Oct. 26: Good progress is being made in the deep adit, and to-day the men have begun boring to try and tap the water. Everything is being done that can be to let this water down as quickly as possible. Their is no change to notice in any of the stopes in back of the 30. Lode maintains its size and quality. The stamps go to work to-morrow permanently, so that in a few weeks a parcel of tin will be ready for market.

SOUTH CONDURROW.—Wm. Rich, W. Williams, H. King, Oct. 25: There is no material alteration in the 93 cross-cut south; we think the lode is about 2 or 3 fms. ahead. The 80 end east is in easy ground for driving, and the lode worth 15*l.* per fathom; the lode in the winze below this level is worth 20*l.* per fathom. The 70 end east is suspended for the time, and the men put to sink with the view to communicate with the stope in the back of the 80. The 60 end east is worth 12*l.* per fathom; the stope in the back of this level is worth 15*l.* per fathom. The 50 end east has a kindly appearance, and we hope it will soon improve; the stope in the back of the 50 east is worth 15*l.* per fathom. The 40 cast yields low quality tinstone. The 30 end west is worth 12*l.* per fathom; the stope in the back of this level is worth 20*l.* per fathom. The 42 end, west of Marshall's shaft, is worth 12*l.* per fathom. We have suspended the winze in the bottom of this level for the time on account of the water. The 54 end west is worth 7*l.* per fathom; the stope in the back of the 54 east is worth 12*l.* per fathom. The lode in the 66 west is worth 7*l.* per fathom. We are opening ground for plat at the 78, and hope shortly to begin to drive the 78 end west in a lode worth 12*l.* per fathom.

SOUTH DARREN.—H. James, Oct. 26: The following bargains were let on Saturday for one month:—To drive the 130, east and west, and a cross-cut south, by 12 men, at 10*l.* per fathom for the level, and 11*l.* per fathom for the cross-cut. To drive the 120 east, by four men, at 9*l.* 10*s.* per fathom. A stope in the back, by four men, at 85*s.* per fathom, and 6*l.* for rising 1 fathom long. To drive the 120 west, by six men, at 8*l.* 15*s.* per fathom. No. 1 stope in back, by four men, at 4*l.* 4*s.* per fathom. No. 2 stope, by six men, at 85*s.* per fathom. To drive the 110 east, by four men, at 9*l.* 5*s.* per fathom. To stope back, by four men, at 85*s.* per fathom, and 6*l.* for rising 1 fathom long. No. 1 stcpe, in back of the 110 west, by four men, at 90*s.* per fathom, and 6*l.* for driving 1 fathom long. No. 2 stope, by four men, at 55*s.* per fathom. No. 3 stope, by four men, at 67*s.* 6*d.* per fathom. Four tribute pitches in the back of the 100, by 13 men, at 5*l.* per ton for lead ore and 30*s.* per ton for copper ore. Two pitches, by four men, at 8*l.* 10*s.* per ton for lead ore and 30*s.* per ton for copper ore, tributers to pay 20*s.* per ton for dressing. Filling the skips, by three men, at 7*s.* 9*d.* per 100 skips. Landing the skips, by two men, at 5*s.* 3*d.* per 100 skips. Drawing the stuff, by two men, at 7*l.* 10*s.* per month. Spalling the orestuff for the crusher, at 11*l* per month. In the 130, east and west, the lode is wide, intermixed a little with lead. In the cross-cut south there has nothing been cut of value, but the ground is congenial for ore. The lode in the 120 east is worth 1 ton of silver-lead ore per fathom. A stope in the back is worth 12 cwts. The lode in the 120 west is worth 1¾ ton of silver-lead ore per fathom. No. 1 stope in back is worth 1 ton; No. 2 stope, 1½ ton. In the 110 east the lode is wide—poor for ore. A stope in back is worth 10 cwts. of silver-lead ore per fathom. No. 1 stope, in back of the 110 west, is worth 10 cwts. of silver-lead ore per fm.; No. 2 stope, 1 ton; No. 3 stope, 15 cwts. The tribute pitches are producing good average orestuff. We have a good supply of water, and all the machinery is in good order.

SOUTH DEVON UNITED.—W. Hooper, Oct. 26: The lode in the 110, east of Brook's engine-shaft, is from 2 to 3 ft. wide, with a value of 7*l.* per fathom. During the past week the lode has been somewhat disordered, with patches of killas. Seeing water is coming freely from the north side of the end, and not being satisfied, we have the main part of the lode. We have to-day put the men to cross-cut north to see whether any more may be standing in this direction, the ground being of a favourable nature. This can be done at a small cost, and will put it beyond a doubt; the stopes in the back of this level are producing their usual quantities of ore—No. 1, 7*l.*; No. 2, 10*l.*; No. 3, 10*l.*; No. 4, 9*l.* per fathom. In the stope in the back of the 100, west of Brook's engine-shaft, the lode is 5 ft. wide; worth 7*l.* per fathom. The lode in the rise in the back of the 80, against Martin's shaft, is without any particular change, being 4 to 5 ft., producing stones of both mundic and copper ore. The stopes in the back of the 80 are worth as follows:—No. 1, 12*l.*; No. 2, 7*l.*; No. 3, 8*l.* per fathom. There is no change in the size or character of the lode in the adit level west of Old Sump shaft since last reported on.—Martin's Shaft: Sinking here progressing very satisfactory; the ground is without any particular alteration, being about the same as for some time past. Pickstone's shaft is being pushed forward as fast as possible, and the men are making good progress in sinking same. We hope by this time next week the shaft will be down its required depth—15 fms. below the 140, when we shall immediately commence to cross-cut north to intersect the lode.

SOUTH PENSTRUTHAL.—S. Davey, Oct. 26: The lode in Walton's engine-shaft is 3 ft. wide, of a promising appearance, and producing a little black oxide of copper; I would remark that the water is highly charged with copper, and judging from the indications now presented in the lode we are nearing a bunch of copper. In the flat-rod shaft we have been pushing on the sinking up to this time, since completing the fixing of the 130 plunger-lift, and changed the pole at the 100, the men are now engaged fixing the pipes for the boring machines, most of the contractors plant now on the mine, compressors, receiver, &c., fixed, and I calculate that in a week or eight days the machines will be in action. Good progress is being made in clearing the 60 west of Simmon's shaft. Since replacing the drawing-lift by plungers a saving of fuel is effected; our water-course is about two strokes per minute. The plant and machinery are in good order.

TAMAR SILVER-LEAD.—R. Goldsworthy, Oct. 26: Good progress is now being made in rising against the new shaft. The lode has not been cut into since last report, our object being to push the lode up as fast as possible. In the end driving south the lode is full 3 ft. wide, composed of capel, friable spar, white iron, mundic, and beautiful stones of silver-lead; a fine looking lode, and one that can scarcely fail, as the end is extended to lay open some valuable ground. The tribute department is still looking well.

TANKERVILLE GREAT CONSOLS.—Arthur Waters and Son, Oct. 26: There is no change in the mines here since the date of the full report submitted to the meeting yesterday.—Bog Mine: The water is now being drained out of the bottom level, and everything is going on well.

TREGEMBO.—Edward Chegwin, Oct. 25: We are making first-class progress with the driving of the 16 cross-cut towards Tregembo lode. The winze sinking at the bottom of the adit, on Tregembo lode, is 3 ft. wide, and worth for tin and copper ores 8*l.* per fathom. In the adit end, driving east of Pinnick's shaft, on Tregembo lode, we have just passed through the large cross lode mentioned in my last report, and up to this morning have not had a fair opportunity of seeing after the main Tregembo lode. The lode 10 fms. west of cross-course, driving south-west from Tregembo lode, is 2½ ft. wide, and worth for tin 15*l.* per fathom. All surface operations are being pushed on as fast as possible.

TRESAVEAN.—Joseph Prisk, William Edwards, Oct. 21: The draining is going exceedingly well, and we hope to be to the 50 by the end of next week. The 90 ft. engine continues to work well, and as the lode increases is much more steady.—Williams's Shaft: We are making good progress in clearing the choke, and are daily expecting to effect a communication with the deep adit.—Wheal Boys: The lode in the deep adit, east and west of cross-cut, is 7 ft. wide, worth 12*l.* per fathom—a very fine looking lode. The lode in the No. 1 stope in the back of the shallow adit is worth 20*l.* per fathom. No. 2 stope is worth 18*l.* per fathom.—Gooch's Lode: The lode in the shallow adit, west of cross-cut, is 3 ft. wide, worth 30*l.* per fathom. The lode in the east end is slightly disordered by a crossing, but is now worth 20*l.* per fathom. We consider the change only temporary, and are pushing the ends by a full force of men. We are pleased to report that tributers are coming on, and we have already set four pitches, which are being worked by 11 men. The stamps are now being kept going night and day, and the dressing-floors are being pushed on with all possible speed. The burning-house is working, and will now be kept going full time, and no time will be lost in getting the tin in the bin. In conclusion, we are pleased to say our prospects brighten daily.

TREVAUNANCE UNITED.—W. Vivian, Oct. 26: There is no change to notice in the underground operations since my last report. We have now a full supply of water for the stamps. We shall have a parcel of tin ready for the smelting works in a week or two.

VAN CONSOLS AND GLYN.—James Roach, Oct. 25: I have forwarded to Messrs. Nevill, Druce, and Co. the parcel of lead ore, 30 tons, purchased by them on Oct. 21. We have 4 to 6 tons raised towards our next sampling. No. 1 stope, which is 90 ft. wide, is looking very well in three different sections of it now being wrought. Tribute pitch in roof of 70 west is also yielding 1 ton of lead per fathom. From present appearances I see no difficulty in raising 30 tons of lead during the current four weeks' working. I believe this piece of ground, which has already been wrought three years, will yield substantial returns of lead the next two years and upwards, if not for a longer period. As you are aware the lead is deposited in bunches and disseminated throughout this extraordinary wide lode, therefore making it difficult to say in what portion of it the greatest amount of produce may be found. It must be all wrought from wall to wall for the extraction of lead it contains. We have not yet struck lead of importance in the 50 cross-cut. There are still some 6 fathoms to drive north in it in which the bulk of the ore may be found—not at all unlikely. I have commenced a rise above the cross-cut to meet the lead directly above, which no doubt we shall do; there are strong cubes of lead in the ground. The 50, in my opinion, should be the pioneer drivage for developing the eastern section of the company's property laying between Murray's shaft and the Van Mines, in which no doubt excellent results will be met with. Sinking winze under the 50 on the lead on south part of lode is a very important matter. It will, I think, lay open excellent lead-bearing ground. The mines are in excellent order, and machinery in good condition and doing our work well.

WEST CARADON.—N. Richards, Oct. 25: To write a detailed report of this mine would be a mere repetition of what I stated last week. I may say that the adit level, driving west of main cross-course, on Gilpin's, together with two stopes in back of same, will yield fully 5 tons of good copper ore per fathom, and from its present appearance I have every reason to believe that we shall have one more or less home to the boundary. I remember some few years ago, when working a piece of ground on Menadue lode at a similar depth from surface, and of similar extent, it took years to take the ore away, giving good profits all the time. The eastern stope in the back of the 50, on Vivian's north lode, is not looking so well. All other places just as when reported on last week.

WEST CREBOR.—J. Andrews, Oct. 25: The lode in the 50 ends driving east and west of shaft is without change since last reported on. In the shaft sinking below the 50 no lode has been taken down for nearly a month, but the shaftmen will commence cutting into it to-night, and if there is any change worthy of notice in the lode I will send you a telegram to-morrow.

WEST CREBOR.—J. Andrews, Oct. 26: I sent you a telegram at 12·30 that the lode in the shaft has improved, and now yields saving work; have cut into it 2 ft., but not yet through it. As mentioned in the telegram, we have cut into the lode 2 ft., which, so far as cut into, is composed of quartz, capel, arsenical mundic, and saving work for yellow copper ore, with indications of further improvement.

WEST DEVON GREAT CONSOLS.—George Rowe, Oct. 25: We have set the engine-shaft to sink below the 36 by nine men, the takers are bound to carry the said shaft 12 ft. long by 6 ft. wide, and to a sufficient depth to fix the new plunger lift, at 13*l.* per fathom. The 36 to drive west by four men, stent the month, at 6*l.* per fathom, the lode in the end is without change during the past week not being taken down.

WEST GODOLPHIN.—T. Hodge, Francis Hodge, Oct. 24: The only improvement to notice in any of the bargains since our report to you for the meeting, held on the 19th, is in the winze on Bellingham's lode, below the 70, where a little improvement has taken place, and we value the lode worth about 12*l.* per fathom.

WEST KITTY.—Wm. Vivian, Oct. 26: There is no change to notice in the underground operations since last week. Our returns of tin are now about 20 tons per month.

WEST PHŒNIX.—R. Gluyas, Oct. 26: Our shaft and end men are making fair progress. Nothing new to report on.

WEST POLBREEN.—Wm. Vivian, Oct. 26: In the cross-cut driving in the 40 we have intersected Dorcas lode; it is from 3 to 4 ft. wide, very kindly in appearance. I now propose to drive on the course of the lode; this lode has produced large quantities of tin at and above this level in the adjoining mine, New Kitty.

WEST WHEAL TOLGUS.—William Gribble, Oct. 26: Richard's Shaft: The lode in the 105, west of shaft, is 6 ft. wide, mixed with killas, and yielding 3 tons of copper ore per fathom. We hope to have an improvement in this end soon. The lode in the 85, west of shaft, is without any alteration since last report, producing stones of copper ore, but not enough to value. Our Nos. 1 and 2 stopes are just as last reported, yielding together from 9 to 10 tons of copper ore per fathom.

WHEAL BOYS.—W. T. White, Oct. 26: The lode in the 50, driving east on copper lode, is without change. The lode in the deep adit level, driving east of engine-shaft, on tin lode, I am pleased to say has very much improved during this week, now producing some good work for tin. I calculate that the lode will still further improve as we extend the great cross-course, being fully 40 fms. in advance; it is very probable the present improvement will continue to the same.

WHEAL CREBOR.—H. Phillips, Oct. 24: The 132 cross-cut is driven 2 fms. 3 ft. towards the south part of the lode: the ground in the end shows indications of being near the lode, having small branches of ore and mundic dipping south towards it. The lode in the 132, west of new shaft, is improved to the value of 12*l.* per fathom, and showing indications for further improvement. We have resumed the sinking of the No. 2 winze in the bottom of the 120, east of new shaft, in order to effect a communication with the 132 as soon as possible. The stope in the bottom of this level, which is suspended for the putting in of timber, will be resumed again next week; present value 50*l.* per fathom. The 108 cross-cut is driven 54 fms. 2 ft. towards the Bridge lode. The lode in the bottom of the 108, east of winze, is worth 20*l.* per fathom. The stopes in the back of the 108 and 96 are worth in the aggregate 60*l.* per fathom. There is no change in the 108 or 72 east of new shaft. The lode in the 48, east of new shaft is 2½ ft. wide, with stones of mundic and good quality copper ore, but not sufficient to value. The lode is in a good stratum of ground, and may improve shortly.

WHEAL GRENVILLE.—F. Hodge, Oct. 23: Goold's shaft is going down with fair speed. The 190 east end is worth 9*l.* per fathom. The winze sinking below the 178 east level, coming just before said end, is worth 11*l.* per fathom. The 178 east end produces low price tinstone. The two stopes in the back of said level are without any change, worth together 50*l.* per fathom. The lode in the 165 east end is worth 8*l.* per fathom. We shall start a cross-cut just behind said end to-morrow, to go north, to prove the value of the lode standing in that direction. The 150 east end is worth 14*l.* per fathom for the part carried. The 140 east end is worth 9*l.* per fathom. The 120 end, west of the western shaft, is worth 11*l.* per fathom. No other change worthy of note. All the machinery is working very well.

WHEAL JANE.—James Reed, Oct. 25: Tutwork Setting Report for Saturday Last: Great Flat Lode: To stope the back and bottom of the 70, west of Tremayne shaft, by 10 men at 7*l.* 7*s.* per fathom, worth 11*l.* 10*s.* per cubic fathom. To stope the back of the 70, west of shaft, by six men at 5*l.* 5*s.*, worth 10*l.* per fathom. To stope the back of the deep adit, east of Gilbert's shaft, upon the south part of the lode, by six men at 5*l.* per cubic fathom, worth 9*l.* per fathom. To stope the back of the deep adit, east of Gilbert's shaft, over the rise and crosscut by six men at 6*l.* 6*s.* per cubic fathom, worth 11*l.* per fathom. To rise in in the back of Tremayne shallow adit level, west of shaft, by four men. To carry the rise 9 ft. long by 6 ft. high at 8*l.* per fathom, worth 7*l.* 10*s.* per fathom.—Ready Money Lode: To drive the 16, east of Gilbert's shaft and cross-cut, by four men at 5*l.* 10*s.* per fathom; lode 5 ft. wide, worth 10*l.* per fathom. To stope the back of the 16, east of cross-cut by four men at 2*l.* 12*s.* per fathom, worth 8*l* per fathom. To stope the back of the shallow level, west of No. 1 cross-cut, by four men at 2*l.* 15*s.* per fathom; lode 4 ft. wide, worth 7*l.* 10*s.* To stope the back of the shallow level east of cross-cut, by four men at 2*l.* 15*l.* per fathom; lode 5 ft. wide, worth 8*l.* per fathom. To drive the shallow level west of No. 1 cross-cut, on Ready Money lode by two men at 4*l.* 10*s.* per fathom: lode 4 ft. wide, worth 5*l.* per fathom. In the 70 cross-cut south upon the cross-course there is no change to notice. Both the steam and water stamps are working regularly with a full supply of stuff, and all surface work being pushed on as fast as possible.

WHEAL JEWELL.—J. Tregoning, Oct. 21: Setting Report: The 60 to drive east of new shaft on the north part of the lode, by six men and three boys, at 90*s.* per fathom; worth for copper from 8*l.* to 10*l.* per fathom at present in the end, and for the entire distance driven from the cross-course (8 fms.). The 50 to drive east of new shaft, by four men and one boy at 85*s.* per fathom; lode very kindly, and occasionally producing good bunches of lead ore. Three stopes in back of this level one at 27*s* 6*d.*, and two at 30*s.* per fathom; producing 1¼ ton per fathom of copper ore. The lode in 40, east of new shaft, to cross-cut, by four men and two boys at 80*s.* per fathom. The pitch in the back by two men and two boys at 100*s.* per ton for lead ore, and 13*s.* 4*d.* in 1*l.* for copper.—West of the New Shaft: At the 50, 40, and 27, seven pitches on copper ore are set to 15 men at tributes varying from 3*s.* 6*d.* to 13*s.* 4*d.* in 1*l.*

WHEAL PEEVOR.—W. T. White, J. C. King, Oct. 26: Thursday next being the day appointed for our meeting to be held, our usual setting report with full valuations, &c (which will be due this week), will be presented on that occasion.

WHEAL PRUSSIA AND CARDREW UNITED.—Jos. Pryor, Oct. 26: The engine-shaft is full of old timber, &c.; consequently it has considerably retarded our progress. Yesterday we came down upon another lift of old pumps; these have to be removed before we can drop again; this will be done as soon as possible. The water is now in fork to the bottom of the 90, or bottom level, so that we are nearly in fork to the bottom of the mine. Our water-course is about 4½ strokes per minute. The tin lode in the 80 is standing in the side of the level for some distance. We have a quantity of tinstuff broken in the level, waiting to be sent to surface; but we cannot do so until we have cased and divided off a portion of the engine-shaft for a drawing-shaft. This is being done with all speed, and hope to complete it next week. When accomplished and the stuff sent up, we shall resume the driving of the 80 end, which is a very important point. The lode in the rise in the back of the 70 west is worth 15*l.* per fathom. The lode in the 60 is improving in size, and worth about 12*l.* per fathom. Nos. 1, 2, and 3 stopes, in the back of this level, are worth 12*l.* per fathom each. We have again resumed the driving of the 60 cross-cut north of the new shaft. The lode in the 50 is worth 12*l.* per fathom. The stopes in the back of this level are improving, and are now worth 14*l.* per fathom each. The lode in the stope in the back of the 40 is worth 9*l.* per fathom. The men are making fair progress in driving the cross-cut north of the copper lode at the 40 west. At surface we are pushing forward the tramroad, spalling-floors, &c., and hope soon to get them in working order. It is our pay and setting next week, when a detailed report will be sent.

WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS,

MINEOWNERS STOCK AND SHARE DEALERS, &c

1, ST MICHAEL'S ALLEY CORNHILL, LONDON

Nearly twenty years ago the weekly information which had previously been published for a great number of years in WATSON BROTHERS' Mining Circular was transferred to the columns of the *Mining Journal*, with the following announcement.

In the year 1843, when mining was almost unknown to the general public attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, published annually in the *Mining Journal* for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring the success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and sharedealing than there is at present; and from the lengthened experience of Messrs. WATSON BROTHERS they are emboldened to offer, thus publicly, their best services and advice to all connected with mines and mining.

Messrs. WATSON BROTHERS are daily asked their opinion of particular mines, as well as to *recommend* mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

The great extension of mining business, the difficulty so often complained of by country shareholders in getting accurate and disinterested information as to the state of Cornish and Foreign Mines, and of the financial and real position of mining companies generally, have induced Messrs. WATSON BROTHERS to make their Circular now published in the *Mining Journal* more extensively known, and to state—

That they issue daily to clients and others who apply for it a Price List (as supplied to most of the London and country papers), giving the closing prices of mining Shares up to Four o'clock.

They also buy and sell shares for immediate cash, for the usual fortnightly settlement in all Mines dealt in on the Mining and Stock Exchanges, at the close market prices of the day, free of all charge for commission. They deal also, on the same terms, in the Public Funds, Railways, Telegraphs, and all other Securities dealt in on the Stock Exchange.

Having agents in all the mining districts, they are constantly getting mines inspected for their own guidance, and will also obtain special reports of any particular mine for their clients, for the inspecting agent's fee of £2 2*s.*

Messrs. WATSON BROTHERS take this opportunity of stating that on July 1 they took into partnership Mr. H. J. DEAN, who has been for a number of years associated with the firm, and Mr. W. H. H. WATSON, who has had some years experience of practical mining and engineering in Cornwall, and is the son of the senior partner. The firm will still be called that of "Watson Brothers."

The number of weekly communications received from almost every part of the world in regard to remarks in this Circular indicate so plainly how much they are read (and, we trust, appreciated) that they will be continued by the same writer.

Indeed, while new blood is introduced to attend to the more laborious and mechanical details of the business, the old will have more time to devote to their different departments.

Several letters have appeared in the Times and other papers lately upon dowsing, or the art and mystery of the divining rod, and we are reminded that nearly 40 years ago Mr. J. Y. Watson met a professor of the art in Cornwall, and went on a dowsing expedition with him, the particulars of which were given in the *Mining Journal*, and also in the Journal of the Society of Arts, of which Mr. Watson was then and is still a member. And there was one remark in his description which has peculiar significance at the present day—viz., that he thought the influence and powers of electricity were not then sufficiently studied or appreciated.

For of course it was to electricity that the powers of the divining rod were attributed. The dowsers who more particularly used it at that time were all excitable men, with nerves highly strung, peculiarly susceptible to electric influences, and more particularly so in the constrained position they held the rod.

It was and is assumed that electric currents passed along mineral veins and underground water-courses, and as most lodes crop up to the surface, both water and mineral are discovered by the rod. The so-called divining rod is of hazel wood, in shape of a pitch-fork, and held so as to place muscles and nerves in a very constrained position, so that the slightest action must move it. The parts representing the tines of a fork are taken one in each hand with a hard grip—the elbows are then pressed tightly to one's side—and by a twist of the wrist the rod, or that part representing the handle of a fork, is forced up towards the face. In this position the dowser marches over fields or ground under which mineral is supposed to exist, and when above a lode the electric current gives him a slight and sudden shock as he will tell you, and this causes the rod to be moved or slightly inclined downwards. This is all the mystery there is in it. Mr. Watson at that time explained that he marched field over field with the old dowser, with no result to himself but great muscular pain in his arms from the constrained position. The dowser, who was a highly nervous and excitable man, skipping about like a parched pea before he took the rod, had several shocks, and discovered, as he insisted, more than one lode.

It is to this electric force in mineral veins that the formation of mineral has been attributed. All great cross-courses are non-conductors of heat. All lodes contain water highly mineralised. And great courses of ore are found near cross-courses. And the theory which we have named once or twice before is that the mineral held in solution by the water is condensed by the electric currents against the cross-courses.

Capt. Josiah Thomas, in an after-dinner speech at Dolcoath, stated that "the whole of the salaries at that mine did not exceed 1250*l.* a year, whereas some of the London directors, as managing poor worthless concerns which never gave a farthing, got more than that." We do not know what the directors of these worthless concerns get, but we do know the usual allowance to a board of three or five directors of a limited company is 200*l.* to 250*l.* a-year. At Crebor, a dividend cost-book mine, the pay of the directors is 1*l.* 1*s.* each when they *attend* the monthly audits of accounts, and neither of them deals in coals or any other materials used at the mine.

The chief object at Langford is to get the water out below the 50 and cut the great copper and silver lodes at the junction, where a great deposit of ore is looked for. In the adit level four lodes have been discovered by Capt. Goldsworthy, from which it is evident that large quantities of ore have been taken away above. Thus when the water is drained to the 35 the level will be cleaned, and steps taken to get under these four lodes and stope away the ore ground that may be found. And judging from the promising appearance of these lodes now to be seen in the adit the agent hopes to make a good discovery.

The bottom level, the 132, at Wheal Crebor, to which we referred last week, has again improved, and is now worth 12*l.* per fathom. The 132 cross-cut, which has been driven 2½ fathoms towards the south lode, seems to be getting near to it.

There is no change in the reports this week of West Caradon, or New West Caradon; at the latter an early improvement is looked for in the 38 south of Hallet's shaft.

A telegram was received at the office of West Crebor on Thursday, as follows:—"Lode in shaft is improved, now yielding saving work; have cut into it 2 ft., not yet through."

THE NEW CARADON.—More than a year ago we were asked to introduce this mine; it is surrounded by New West Caradon, West Caradon, and South Caradon, and is one of the best speculations in the district. But we thought then that the price asked for it was too high, and that it would be best to wait and see how West Caradon turned out. The district is now in great repute, and setts are in demand at high prices. We have no longer, therefore, any hesitation in introducing and recommending it. It will be in 12,000 shares with 5*s.* per share, or 3000*l.*, paid up; of this 1000*l.* (taken in shares, 5*s.* paid) is to be given for the sett, and 2000*l.* left for working capital.

The plan shows that Kitto's lode, Kitto's south lode, and Jope's lodes of South Caradon pass through the sett, and in an adit four lodes have been intersected; to open out these will not cost much money, and a discovery may send up the shares as high as West Caradon, which have lately risen from 5*s.* to 35*s.* We publish below a report made by the mineral agent of the Duke of Leeds on the property, and have only further to say that 10,000 shares have already been taken, and that 2000 have been reserved by us to offer our clients and friends at par. Those who desire to have any must make early application, accompanied by 5*s.* per share for the number required, as all that we have to spare will be allotted to first applicants, and no more except at a premium. The committee of management will be Mr. J. Y. Watson, F.G.S, Chairman of Wheal Crebor and West Caradon; Mr. Orlando Webb, director of Wheal Crebor, West Caradon, &c.; Mr. J. McMillan, director of Bratsberg, &c. Secretary, Mr. C. B. Parry, Gracechurch-street Buildings.

THE NEW CARADON.—Jan. 31: I have carefully gone over the above mine this day with Capt. Richards. I find from the plan the sett is about 360 fms. long on the line of the lodes, and 360 fms. wide. It is bounded on the north by the New West Caradon and West Caradon Mines, and on the east by the far-famed and well-known South Caradon Mine; its situation has a southerly slope, and its geological position is everything that can be desired for producing minerals; it is also traversed by the well-known lodes of the above mines, from which large returns of copper ore have been made, and a large amount of money paid in dividends to shareholders. Some years since an engine-shaft was sunk on one of the lodes to the 70, but very little work was done at that point. There are good stones of copper ore now to be seen in the sump-burrow, and from what I hear the lode produced good stones of ore from the top to the bottom of the shaft. A deep adit has been driven in from the valley about 144 fathoms, and intersected five copper ore lodes, and giving them a back of nearly 30 fathoms in height. I should recommend a trial to be made at once on these lodes, which can be done for little money, and the chances are a good mine will be laid open, and the shareholders well remunerated for their outlay. I consider this mine a first-class speculation, and I can recommend it to you and your friends.—JOHN CURTIS.

TO THE METAL TRADE.

FOR COPPER, TIN, LEAD, &c., apply to—
MESSRS. PELLY, BOYLE, AND CO.,
SWORN METAL BROKERS,
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METAL MERCHANTS AND BROKERS.
SOLE AGENTS FOR THE CELEBRATED SWEDISH STEEL,
BRANDED "SANDVIK."
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OLD METALS of EVERY DESCRIPTION PURCHASED for CASH.

The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, OCT. 27, 1882.

IRON.	£ s. d.	£ s. d.
Pig, GMB, f.o.b., Clyde	2 10 11½	— —
,, Scotch, all No. 1	2 12 3	2 12 6
Bars, Welsh, f.o.b. Wales	5 15 0	6 0 0
,, ,, in London	6 5 0	6 10 0
,, Stafford., ,,	7 10 0	7 15 0
,, in Tyne or Tees	6 0 0	6 5 0
,, Swedish, London	9 15 0	10 0 0
Rails, Welsh, at works	5 15 0	6 0 0
Sheets, Staff., in London	9 0 0	9 10 0
Plates, ship, in London	9 5 0	9 10 0
Hoops, Staff.,	8 0 0	8 5 0
Nail rods, Staff., in Lon.	7 15 0	8 0 0
STEEL.		
English, spring	12 0 0	18 0 0
,, cast	30 0 0	45 0 0
Swedish, keg	15 0 0	—
,, fag. ham.	15 10 0	—
Rails, at works	5 5 0	5 10 0
,, Light, at works	6 10 0	6 15 0
LEAD.		
English, pig, common	13 17 6	14 0 0
,, ,, L.B.	14 2 6	14 17 6
,, ,, W.B.	14 12 6	14 17 6
,, sheet and bar	15 0 0	—
,, pipe	15 10 0	—
,, red	16 5 0	—
,, white	20 10 0	22 10 0
,, patent shot	16 15 0	—
Spanish	13 7 6	13 10 0
NICKEL.		
Metal per cwt.	15 0 0	16 0 0
Ore 10 per cent. per ton	20 0 0	25 0 0
SPELTER.		
Silesian	16 15 0	17 0 0
English Swansea	17 15 0	— —
Sheet zinc	20 5 0	20 10 0

TIN.	s. d.	£ s.
English, ingot, f.o.b.	106 0 0	—
,, bars ,,	107 0 0	—
,, refined	108 0 0	—
Australian	99 10 0	99 15 0
Straits	99 10 0	99 15 0
COPPER.		
Tough cake and ingot	73 0 0	75 0 0
Best selected	76 0 0	77 0 0
Sheets and sheathing	81 0 0	83 0 0
Flat Bottoms	84 0 0	86 0 0
Wallaroo	75 10 0	76 0 0
Burra, or P.O.C.	75 0 0	75 10 0
Other brands	nom. 72 0 0	74 0 0
Chili bars, g.o.b.	70 0 0	—
QUICKSILVER.		
Flasks, 75 lbs., war.	5 17 6	—
PHOSPHOR BRONZE.		
Alloys I., II., III., and IV.		£125 0 0
,, VI. and VII.		140 0 0
,, XI., Spl. bearing metal		117 0 0
BRASS.		
Wire	8	d.— —
Tubes	10½	— —
Sheets	8½	— —
Yel. met. sheath. & sheets	6¾ d.–7	
TIN-PLATES.*	per box.	
Charcoal, 1st quality	1 1 0	1 2 0
,, 2nd quality	1 0 0	1 1 0
Coke, 1st quality	0 13 0	—
,, 2nd quality	0 17 0	—
Black, per ton	15 10 0	—
Canada, Staff. or Gla. at Liverpool	12 0 0	—
Black Taggers, 450 of 14 × 10	30 0 0	—

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; IX 6s. per box more than IC quoted above, and add 6s. for each X. Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—Quietude has again characterised the demand for most metals, particularly so at the early part of the week, although there is no special cause to which it can be attributed to. There is a certain amount of shyness in transacting business at the present time, on the part of buyers, which may be a matter of some surprise since surrounding events still continue to favour a development in trade. In an ordinary way such events as now exist are quite sufficient to stimulate the speculative enquiry, if not to promote regular business; but just now there is no briskness in the demand for speculation, and not much activity in the demand for the ordinary wants of the trade. There is a pause; but how long that will continue it is difficult to foresee. Last week we brought before the notice of our readers several reasons for showing the improbability of any material reduction being made in prices, of course, so far as manufactured metals are concerned, it being quite impossible to anticipate what changes are at all probable in the raw material, while they are regulated to so great an extent by the action of speculators, and we refer to this again to show that if buyers are holding off for any very reduced rates they are not likely for some time hence to meet with much success. It appears that a struggle is going on between sellers and buyers, and the question is which party will be able to hold out the longest. Sellers are very firm for the time being; but, should the action of speculators cause the prices of the raw material to recede, then manufacturers might possibly make some concessions, but this would doubtless only be temporary, as the markets must right themselves, and, in the long run, be governed by the actual position of the trade. With this exception there is not much likelihood of reduced rates being accepted, and, therefore, it seems probable that renewed purchases will have to be made at current rates; but how long buyers will be able to hold off time alone can decide. It is evident that during this temporary check to the demand private stocks must be in great measure running off.

In the meantime sufficient orders are said to have been secured to keep most, if not all, the works in constant employment for some time hence, and, therefore, although an injurious effect is occasioned by the dulness in the existing demand, yet there is activity in the trade in general, since the works hold enough orders to keep them in regular employment, and on this account the state of the trade is reported satisfactory. Prices for speculative metals having displayed a somewhat lengthened drooping tendency, a sharp rebound is not at all unlikely. It wants somebody to make a start in effecting renewed purchases. Every one appears to hesitate in making a beginning, and consequently the markets suffer. But yet, in reviewing the state of the trade during the past week, it must be acknowledged no very adverse effect has prevailed, only in one or two instances lower prices having been taken. Steadiness is the principal characteristic, and the state of the legitimate trade appears to remain sound and satisfactory, both as regards the consumptive and export demands. But by speculators the markets have been more or less neglected, and this causes less animation, and gives prices for such metals rather a retrogressive tendency.

COPPER.—Unchecked quietude has been the principal feature in this market, the amount of business doing having been very limited, but prices, taken on the whole, have remained steady, although for Chili bars they have at times been rather easier, noticeably so at the latter part of the week. The actual state of the market may be reported without change; but prices, on the whole, are steadily sustained. That speculative feeling which cropped up a week or two back seems to have been suspended, and what is doing now is more to meet the actual wants of the trade. It is, therefore, satisfactory to see that the market is well sustained for the various descriptions, with the exception, as we have already stated, of Chili bars, which being the kind of copper in which speculation alone exists, it is easy to account for the slight ease therein visible, operators being less disposed to continue making purchases. The non-fluctuating character of the market may be viewed favourably, and although it may cause holders to keep their stocks rather longer before they can turn them over at a profit, yet it gives an opportunity for the regular trade to further develope, and for the state of the genuine demand to make itself visible. The dulness in the demand this week shows that there is not much inclination amongst sellers to accept reduced rates, even although orders may not flow in very plentifully; and, therefore, it would seem as though buyers are not likely to gain anything in prices by holding back, while they should not lose sight of the probability of prices advancing rapidly, should any renewed speculative demand occur, and which might reasonably be expected, should anything fresh arise in the shape of improved statistics, or the springing up of an increased demand or reduced supplies.

IRON.—This market keeps steady, and although new orders are not very plentiful, yet activity is still generally reported from the various manufacturing centres. Prices are tolerably strong for all classes of manufactured, and a fair amount of business is doing. With regard to Scotch pigs so large a business is doing that extra furnaces are being put into blast, and although this may be viewed with regret in some quarters, as it prevents stocks being worked off so rapidly, yet it is interesting to note that the re-lighting of several furnaces has not checked the repeated reductions in public stocks, and if the stock continues to be reduced by several thousand tons per month, as it has been for some time past, then it cannot be long before it is brought within reasonable figures, it already being very much lighter than for a very long time past. The demand has not been very brisk for warrants, and consequently prices have not undergone much change, but a good business has been transacted for shipment, the returns being again very favourable, while the demand for home consumption is likewise well maintained. The following returns from Middlesborough are also satisfactory, for they likewise show large exports and further reduced public stocks.

It is also interesting to observe some slight improvement in the enquiry for manufactured in that district, especially as that particular branch of the trade has of late not been very active, prices having advanced chiefly in sympathy with the rise in other descriptions. There has not been much business doing on the Glasgow warrant market; but prices taken the whole have been rather firmer, except on Monday last, when the quotation was reduced to 50s. 4½d., but on Tuesday the price again rallied to 50s. 6d., further strengthening on Wednesday to 50s. 11d. Yesterday being a Glasgow fast-day there was no market, but the closing price to-day is 50s. 11½d. The shipments still continue good, those last week being 13,051 tons, against 12,451 tons for the same week of last year, or an increase of 607 tons, and which brings up the total shipments for the whole of this year to 524,901 tons, against 474,112 tons for the corresponding period of last year, and 571,622 tons for the same time of 1880. Another furnace has been put into blast, making a total of 114, but a further decrease of 1303 tons has been effected in the public stock, making the total stock now 621,095 tons, against 622,398 tons last week.

The imports of Middlesborough pig-iron into Grangemouth last week were 3845 tons against 3930 tons for the same week of last year, or a decrease of 85 tons, and which makes a total decrease for the whole of this year compared with last of 53,847 tons. Advices from Middlesborough report the Cleveland market as quiet, but prices are characterised by firmness and steadiness. The shipments keep extensive, and this tends to give a good deal of support to the market and increases confidence. For sharp delivery secondhand lots of No. 3 are offering at 44s. 6d. to 44s. 9d., while 45s. 3d. is quoted for delivery next year. Warrants are held for 44s. 3d., while the public stock shows a further decrease for the week of 722 tons, making the present stock 103,896 tons. For manufactured there is rather more enquiry and some good contracts have been made; but no great alteration has taken place in prices. Ship-plates rule at £6. 15s., and bars and angles at £6. 2s. 6d, while puddled bars are quoted £5. 6d. per ton. The Wolverhampton market is said to be very firm, and buyers are less shy in paying sellers' present quotations, who are said to be again rather firmer, in all cases demanding the full 10s. advance.

The price of sheets is £8. 10s. for singles, with the usual difference for doubles and trebles. The price of common bars is £6. 10s. to £6. 15s., and of hoops £7. to £7. 5s., and there is a better demand for gas strips at £6. 15s. With regard to pigs, best native sorts are quoted at 67s. 6d. to 70s., Tredegar hematites at 70s., and Derbyshire at 55s. There is barely any change to report in the state of the Birmingham market, and although business is somewhat curtailed prices all round are firmly maintained, list bars selling at £8. per ton. The enquiry for consumption keeps good, but the export demand remains slack, the principal shipments being to South America and India. At Sheffield the trade continues to steadily improve, and the prospects are considered a good deal brighter, and notwithstanding the stiff tendency of prices orders are said to flow in. In Wales the demand keeps good, and although perhaps there is scarcely so much doing as a week or two ago yet prices all round remain very firm. The advices from New York of Oct. 20 show that there is very little difference in the state of the American market, but sellers appear to have but little difficulty in obtaining full prices, and a fair demand exists for all classes of iron, with the exception perhaps of hematites, in which there is little doing, although the production is rather heavy.

TIN.—This market has been very unsettled, and a good deal more disposition has been evinced to make sales than to effect purchases. Prices have fallen considerably, and on this account a rebound might be looked for; but the question is whether prices heretofore have been upheld fictitiously, in which case the usual rally which invariably follows a fall in prices might not occur. But, taking all things into consideration, it scarcely seems that prices have been advanced much beyond what is warranted by the real state of the trade. The light stocks, the limited supplies, the good demand are all features upon which quotations may be based, and although the various movements and fluctuations in prices are to be attributed to the immediate action of speculators, yet operators have effected their purchases or sales, as the case may be, upon the foregoing reasons, and, therefore, present prices may in reality be justified by the demand for consumption. The statistics at the end of the month will doubtless have some influence upon next week's prices, and should they again prove favourable the sharp reaction would very likely be followed by an equally sharp rebound.

STEEL.—A moderate business is being transacted, but prices for rails are scarcely so strong.

TIN-PLATES.—Steadiness continues the principal feature in this market, both as regards the demand and prices.

LEAD continues very flat, with buyers of Spanish at £13. 7s. 6d., and sellers at £13. 10s. English has been done at Newcastle at £13. 15s.; here we quote it £13. 17s. 6d. to £14. per ton.

SPELTER is unchanged, at £16. 15s. to £17. for ordinaries, and £17. to £17. 5s. for specials. The provincial sellers of hard spelter have agreed not to effect sales under £12. per ton, owing to the very unremunerative figures that have lately been quoted.

QUICKSILVER is again cheaper, the importers of Spanish having accepted £5. 17s. 6d. Demand is on a fair scale, and second-hand parcels are not now freely offered, but the fall in price has somewhat lessened the confidence of holders.

The settlement of the fortnightly account has again occupied the chief attention of the dealers in the MINING SHARE MARKET, but an active business has also been transacted in several prominent shares, chiefly of a speculative character. Those mostly dealt in have been West Caradon, South Caradon, New West Caradon, West Crebor, East Caradon, Wheal Crebor, Langford, Carn Brea, Devon Friendship, Bedford United, North Blue Hills, Parys, Prince of Wales, West Seton, and a few others.

TIN.—The standards for ore have been further reduced this week £2. per ton, and the shares have been flat, and little dealt in. Blue Hills are quoted 20s. to 22s. 6d.; Dolcoath, 75 to 77; Cook's Kitchen, 40 to 42; East Lovell, 20s. to 25s.; East Pool, 52 to 54; East Blue Hills, 10s. to 12s. 6d.; Drakewalls, ⅜ to ½; Kit Hill, ⅜ to ½; Killifreth, 5¼ to 5½; Penhalls, 1⅛ to 1¼; South Condurrow, 9⅛ to 9⅜; South Crofty, 12¾ to 13; South Frances, 11½ to 12; Tincroft, 11½ to 12½; West Basset, 8 to 8½; West Frances, 12 to 13; West Peevor, 9 to 10; Wheal Basset, 10 to 10½; Wheal Grenville, 9½ to 10½; Wheal Jane, ⅞ to 1⅛.

Wheal Kitty (St. Agnes), 2 to 2¼; Wheal Peevors have declined to 3, 4; Wheal Sisters, 1⅛ to 1⅜; Wheal Uny, 5 to 5¼. Carn Breas have been more in request, and leave off 9½ to 10½; at the meeting, however, the accounts showed a loss on four months' working of £2956., and a debt of £5640., yet no call was made. The tin sold—212 tons—realised 12,749£. The prospects of the mine are said to have improved, and the more reason, therefore, that this debt should have been paid off by a call, and not remain as an incubus upon the property. Wheal Agar, 18 to 18½; at the meeting here the accounts showed a loss of £2656. on four months' working, and a debit balance of £5798£. A call of 10s. per share (3000£.) was made. In about a month the agents hope to have the mine in fork. At West Godolphin the accounts showed a balance in favour of the company of £59£., and a call of 1s. per share was made. West Kitty, 14 to 15; the returns here are about 20 tons of tin per month. Trevaunance, 2¼ to 2¾; Goodevere, 1¼ to 1½; Mounts Bay, ⅜ to ½; New Kitty, 2½ to 2¾; North Blue Hills, 3 to 4; Tresavean, 1 to 1¼.

COPPER has been rather quiet, but a good business has been done in shares in several copper mines at advanced quotations. Bedford United, 2 to 2¼; Carnarvon Copper, ⅜ to ½; Devon Great Consols, 5¼ to 6½; Devon Great United, ½ to ¾; East Caradon, 12s. 6d. to 17s. 6d.; Gunnislake (Clitters), 4 to 4½; Langford Copper and Silver, 8s. to 10s.; Mellanear, 4¾ to 5; New Cook's Kitchen, 6½ to 7; New West Caradon have advanced to 10s., 12s. 6d.; an early improvement is looked for here. Parys Copper, 8s. to 10s.; Prince of Wales, 8s. to 10s.; South Devon United, ¾ to ⅞; West Caradon advanced to 35s., then dropped to 25s., 30s., and leave off 25s. to 30s.; there is no particular change in the report this week. Wheal Crebors have been in fair request, and leave off 3¼ to 3½.

West Crebor have advanced to 9s., 11s.; the lode taken down in the shaft has improved, and is 2 ft. wide, saving work as far as seen. Devon Friendship, 9s. 6d. to 10s. 6d.; in a few days the winding-engine will be on the mine, and the increased dressing machinery is in course of erection, Sortridge, 6s. to 8s.; in a few weeks, the agents state, a parcel of tin will be ready for sale. West Devon Consols, ½ to ¾; West Seton, 22 to 23; West Tolgus, 16 to 18; Gawton, ⅜ to ½; Hingston Down, ½ to ¾; Minera, 8 to 9; Mona Consols, 1 to 1¼. South Caradon have advanced to 25, 30; it is said that a new company is prepared to take the mine.

LEAD MINES continue weak and very little dealt in; prices are, therefore, mostly nominal. Vans are quoted £6 to £6½; Great Laxey, 17½ to 18½; Roman Gravels, 9 to 9½. Tankerville Consols, 6s. to 8s.; the meeting on Wednesday unanimously confirmed the resolution for increasing the capital; the improvement at Potter's Pit is regarded as important. East Roman Gravels, 10s. to 12s. 6d.; nothing new here. Frongoch, 1½ to 2; Goginan, 1 to 1¼; Grogwinion, 1 to 2; North Grogwinion, 1 to 1¼; Bwlch, ½ to ¾; Coed-y-Fedw, 1 to 1¼; East Rose, 1 to 1½; Goddard's Lead, 1 to 1½; Gorsedd, 2½ to 3; Leadhills, 3½ to 3¾; Old Shepherds, ¾ to 1; Pennant, 4½ to 5; Penyr-Orsedd, 1 to 1¼; Sinclair, 1 to 1½; South Darren, 1 to 1¼; West Lisburne, ¾ to 1; Gwernymynydd, ⅞ to 1⅛.

FOREIGN MINES.—Akankoo, ⅜ to ½; Alamillos, 1½ to 2; Almada and Tirito, ⅜ to ½; Anglo-African Diamond, 3 to 5; Broadway, ½ to 1; Canadian Copper and Sulphur, 1 to 1¼; Cape Copper, 53½ to 54½; Central Jagersfontein Diamond, ¾ to 1¼; Chile Gold, ⅝ to 1⅛; Copiapo, 3¾ to 4¼; Devala Moyar, ¾ to 1; Fortuna, 2½ to 3½; Frontino and Bolivia, 2⅜ to 2½; General Mining, 5¼ to 5⅝; Indian Consolidated, ⅜ to ¾; Indian Glenrock, 1 1-16th to 1 3-16th; Indian Phœnix, 1⅛ to 1¼; Indian Trevelyan, 9-16ths to 11-16ths; Kapanga, ¾ to 1; great excitement has been created in Auckland by the exhibiting by Captain Thomas of a 30-lb. specimen of quartz from the company's mine at Coromandel; it yields 2 ozs. of gold per lb. weight of stone, and will come home by the next mail.

La Plata, 2 to 2¼; the weekly smelting return states that the ore smelted was 900 tons, yielding 17,500 ozs. of silver and 92 tons of lead. The value of the consignment was £5625£. Linares, 3 to 4; Mason and Barry to bearer, 16¾ to 17¼, ex div.; Mysore Gold, 9-16ths to 11-16ths. Nouveau Monde, ½ to ¾; Capt. Anthony and staff have left for the Nacupai Mine, Venezuela, and it is reported that the company have acquired another property in Dakota, U.S., on favourable terms. Kimberley North Block Diamond, 5 to 7; Rhodes Reef, 9-16ths to 11-16ths; Richmond, 8½ to 9; Rio Tinto Bonds to bearer, 99 to 101; shares, 25 to 26; Scottish-Australian, 2 to 2¼; new, 1 to 1¼; St. John del Rey, 180 to 200; South-East Wynaad, 1⅜ to 1⅝.

Colorado, 1¾ to 2; Organos, 2¼ to 2½. Ruby, 2¼ to 2½; Bratsberg have been quiet, and leave off 2, 2¼. The monthly report received this week shows the aggregate value of the points in operation to be above 400£. There is said to be ore at the port, nearly enough for two cargoes, and also 200 tons dressed at the mine. Corporation of South Australia Copper, ⅞ to 1⅛; Oritá Gold, 1⅛ to 1⅜; Victoria Gold, 1 to 1⅛; Birdseye, 1⅜ to 1⅝; Michipicoten, ¾ to 1; Yuba River, par to ⅛ prem. Colombian, 7s. to 9s.; the profit for the month of August, we understand, is 943£., which is considered satisfactory. Tolima, 4¾ to 5¼; the returns from the Frias Mine for August amount to 7143£., and the estimated profit for the month 4000£. This is the best result ever sent from the mine, and shows an average of 543 ozs. of silver to the ton.

The Market for Mine Shares on the Stock Exchange, so far as regards Home Mines, has been entirely neglected, the further decline of 2£. in the tin standards, making 6£. drop in the fortnight, the downward movement of copper, and the fall from 2s. 6d. to 5s. in lead naturally having a very depressing effect; but as many mines are looking well for the production of mineral, it is hoped that the depression will not be of long continuance. At Old Gunnislake, where they have been driving for two years, they have just cut into the cross-course, so that the future is now looked to with more confidence. At Gunnislake (Clitters) meeting, on Tuesday, it is anticipated that an important statement will be made. There has been a great expenditure for the purchase of machinery going on for some time, but this is now drawing to a close, and a good account is expected. Russell United meeting on the mine, on Monday, is also expected to be an interesting one. The lode is still holding good, and will be taken down on Monday, in time for the shareholders to know the result. From the Kapanga Company's mines at Coromandel a fine specimen of quartz has been obtained; it is a 30 lb. stone, and is estimated from the assay to contain 60 ozs. of gold. It will be sent to England by the next mail. Of course it is not supposed that quartz of this quality will be obtained in regular working, but that Scotty's Reef is rich is not doubted. The specimens are from this reef at a depth of 300 ft., and local experts are of opinion that a bright future is in store for the company.

Our usual telegram from Cornwall this evening says:—During the past week the Cornish mine share market has been dull, the Cornish smelters having further reduced tin standards by 2£. per ton. A few leading shares have been dealt in, and prices are in many cases nominal. At Carn Brea yesterday a loss of 2956£. on four months' working, and a debit balance of 5640£. was reported. No call was made, Capt. Teague speaking hopefully both of trade and of the mine's prospects. At Wheal Uny yesterday a loss of 739£., and an adverse balance of 3290£. was shown, balance being carried forward. It was mentioned that the communication of the 150 with the 172 had been that day effected. Carn Brea, 10 to 10½; Cook's Kitchen, 40 to 41; Dolcoath, 74½ to 75; East Pool, 52½ to 53¾; Killifreth, 5½ to 5⅝; Crofty, 12½ to 13; South Frances, 11½ to 12; Tincroft, 12 to 12½; West Basset, 8 to 8½; West Frances, 12 to 12½; West Kitty, 14¼ to 14¾; Agar, 18¼ to 18½; Wheal Basset, 10 to 10½; Wheal Peevor, 3½ to 4.

In Electric Light Companies shares there has been a general decline in price. Brush Parents (10£. paid) are about 20 per cent. lower, having dropped from 12½ to 10¼, and the fully paid are 25 per cent. cheaper, being now 18 to 23; Hammonds are nearly 30 per cent. lower, being now 5½ to 6. As they are still excessively high as compared with the shares of other companies supplying equally good and economic lights, a further declension is not at all improbable, especially as both Brush and Hammonds are still at more than 100 per cent. prem.

The Fish Supply Company, with a capital of 30,000£., in shares of 5£. each (two-thirds to be now issued), has been formed to meet one of the most urgent wants of the present time—the supply of all kinds of fresh, dried, and kippered fish, shell-fish, also ice, poultry, game, &c., of first-rate quality, at prices which, while amply remunerative to the company, will be considerably below those at present charged by retail fishmongers. The company have acquired six shops, which, it will be seen from the prospectus in another column, are splendidly situated, and are doing a very large and profitable trade. They are acquired by the company at their market value there being no promotion money whatever, no preferred or deferred shares; and the success which has hitherto attended them justifies the directors in assuming that the company will pay dividends of at least 15 per cent. per annum, and still have large reserves.

It is calculated that the present issue half paid-up will be sufficient to carry on 25 shops, the selection of which will be most carefully made by the directors, who are all thorough business men, and who will wait for opportunities of acquiring shops in really good trading positions rather than take any without due consideration. It is shown by the audit of Messrs. Bennett and Co., chartered accountants, the net weekly profit of the businesses acquired by the company is 24£., equal to 1248£. per annum, over 35 per cent. on the purchase-money—1450£. cash and 400 shares: 25 shops *pro rata* would show 100£. per week, or 5200£. per annum, which figures on a paid-up capital of 10,000£. speak for themselves. The directors believe that in this company they are offering to investors an exceptionally safe and remunerative investment, and to the public an advantage of which they will not be slow to avail themselves.

In Diamond Mining Companies shares there has been a great improvement, Central Jagersfontein being now quoted ¾ to 1¼, and several transactions have taken place on the basis of that quotation. It has already been stated that the Jagersfontein is the principal white-diamond producing mine in South Africa, and it is probable that in the near future British capitalists will give much more attention to the various properties in that mine.

In Indian Gold Mine shares there has been a fair amount of business done, but prices have remained without material alteration. It appears that although the exact tonnage of the Indian Phœnix parcel which yielded the 75 ozs. of gold is not known, no doubt is entertained, judging from the reports previously to hand, that it was fair produce ore, so that quantity alone would be necessary to yield profit and dividends. The delay in clearing up the unintelligible Glenrock telegram caused a very bad feeling among the shareholders, which is the more to be regretted, as fair progress seems to be making at the mines. Some portion of the large mill is working satisfactorily, and the remainder will shortly be ready for starting. It was not anticipated that the first results would be anything remarkable; but late reports from the manager declare better stuff to be now available. Nothing has yet been heard of the 500 ozs. of gold from the South-East Wynaad Company's mines; perhaps because no one has come forward to say that the promised 2000£. will be forthcoming in return for it. If this be really the cause, it would be worth the shareholders' while to give the first 500 ozs. as a gratuity, upon proof that a similar quantity will be obtained from the treatment of a similar tonnage of ore. Indian Trevelyan prospects are considered to be now very good, as they have ascertained,

it seems, where the rich portion of the ground is to be found. The surface stone having been proved not worth treating, crushing has been suspended, with a view to get the rich reef stuff from a deeper point.

Cook's Kitchen, 40 to 41; there is a rich deposit of tin now being opened up in the bottom of the mine.

Devon Great Consols, 6 to 7; the last month's sale of copper ore realised 2624*l.*, which, with the arsenic, will, it is stated, leave a good profit.

Devon Great United, ⅜ to ½; rock-boring machinery is now being applied in driving the several ends, and good results are shortly expected.

Drakewalls, ½ to ⅝; good progress is being made both underground and at surface, and a sale of tin will take place next week.

East Wheal Rose, 1 to 1¼; no change is reported in this market as dealers prefer holding their hands awaiting the cutting of Innes's and Middleton's lodes at the 20. Buying would cause a sudden upward movement.

Kit Hill, ½ to ¾; some good tin ground is now being opened out in the various levels, but the progress in driving the tunnel level is not so satisfactory as could be desired.

Mounts Bay, ¾ to 1; this market is stated to be much more healthy in tone, several large parcels of shares having been absorbed with more buyers than sellers.

Old Shepherds, 13-16ths to 15-16ths; and reported very firm, sellers not being disposed to deal under par.

South Caradon, 27½ to 30, and have been in good demand all the week. It is said that some fine courses of ore are now being developed, some of which are worth from 10*l.* to 12*l.* per ton.

South Devon United, ¾ to 1; according to the agent's report he thinks there is more of the lode standing by the side of the 110 fm. level. It appears that Pickstone's shaft will be down to the 155 in the course of next week, when a cross-cut will be pushed out to intersect the lode, a point looked forward to with considerable interest by the advocates of the development of this portion of the property.

South Wheal Frances, 12 to 13; there is a fine lode in the bottom of the shaft at this mine, and some important discoveries are shortly expected in other portions of the mine. We understand that a new tin-dresser has been appointed, and it is hoped that every attention will be directed in this department to saving all the tin that is practicable.

Tresavean, 1 1-16th to 1 3-16th; shares for delivery having come forward slowly, the feeling is towards higher prices, as tributers are coming forward freely to work on Gooch's lode on very favourable terms to the company,

West Basset shares have been flatter during the week at 7½ to 8, owing no doubt to the condition of the finances not admitting of the declaration of a dividend at the last meeting.

West Wheal Seton, 23 to 25; since Capt. Charles Thomas (the manager of Cook's Kitchen) has had the management of this mine considerable progress has been made in its development, and no doubt he will be in a position to sink the shaft shortly, where there is a very wide and rich lode going down, and it is generally believed, locally, that this will open out a good and profitable mine. A good sale of copper ore is expected next month, and the returns of ore will be considerably increased.

Wheal Hony and Trelawny, 2¾ to 3; a satisfactory report has been received from Captain Hancock stating that he would to-day (Friday) put the ore broken in the 108 end out to shaft, and by Monday morning next he will have rail laid down into the end and go on driving it by a full pare of men with rock-drills. Mr. Wm. Derry, one of the consulting engineers to the company, thoroughly inspected the mines on Oct. 18, and values the lode in the 88 forebreast at over 3 tons per fathom.

In connection with the re-working of gold in the Leadville district it is stated that gold has been washed for in the Arkansas river and its tributaries since the white man could stay there, with many personal risks from Indians—(say) 1860—and it is believed that the Spaniards, 300 years ago, got the cream of the surface gold. There are gold mines in the lines of the gold gravel, that is, you can trace the gold in gravel right up to the mines, and these gold mines again have been worked for many years under the great disadvantage of distance from supplies and ruinous charges for hauling. Authority says that the yield of the new Leadville district, in placer gold, 1860 to 1869, was $5,812,000; from 1870 to 1873 it was $589,000; in 1874 and 1875 the return of gold and silver was $327,760; and in 1876, of gold, silver, and lead, $90,900; 1877 to 1882 (half of the latter), $50,032,326 worth was obtained. The existence of lead and silver was detected after many years constant working in the sand carbonates which so much impeded the flumes of the gold washer.

Hornachos, 10 to 10½; the directors are negociating for rock-drills and air-compressors, so that henceforth operations will be carried on with greatly increased speed. The contract for the drills will be closed in the course of the ensuing week, when details as to the arrangements made for their delivery at the mines will be published.

Richmond, 8½ to 9; the telegram from the mine states that the week's run was $19,000, from 478 tons of ore. During the week the refinery produced doré bars to the value of $20,000. The superintendent's weekly report (Oct. 2) gives the present condition and extended work for the week. The 300 south-east drift from south-west drift is in very hard but favourable limestone. In the 700 winze and explorations downward some good carbonate ore has been found. The 800 drifts are all looking very favourable. The 1050 north-west drift from station has been extended 17 ft.; total, 38 ft. in quartzite.

Ruby and Dunderberg, 2 to 2½; the weekly report gives particulars of the work done since last advices. The ground in the 800 ft. continues exceptionally hard. It has been decided to stop the drift for the present. The developments below the 700 ft. level are encouraging, another cave having been met with, and more broken ground, which leads the management to think they must be in the vicinity of a large ore body. The rise in the 300 ft. level towards the Home Ticket old working has been advanced 35 ft. during the week, which is considerd very good progress. The ore at the surface workings of the Home Ticket had much improved both in quality and quantity. The shipments of the week amounted to 44 tons, half being from the Dunderberg and half from the Home Ticket.

Henriett, par to 1½ prem.; the week's advices from the manager says: Received for 379 tons of mineral, average price per ton equal to 7*l.* 6s. 11d.; received for 194 tons of iron, average price per ton equal to 16s.; amount, $14,700, equal to 2940*l.*

Placerville Gold, 1 to 1½; a telegram received from Mr. Thomas Price says: Crushed 379 tons in September, yielding $2160. Bottom mine improving.

New Emma, 1 to 1½; the latest advices from the mine state that the shaft is sunk 53 ft.; rock continues hard and dry. The boilers, steam-pipes, and fittings are now at the mine. Mechanics will be there the beginning of October to put them in position. They have taken the miners off the shaft to enlarge and straighten the Bay City Tunnel to allow the steam-pipes to be fixed. Nearly all the machinery will be in place by Nov. 1, and they hope to have in all the coal by Nov. 15. Pumps have been shipped, and expected shortly.

California Gold (of Colorado), 1 to 1½; large transactions are reported to have taken place in these shares during the week. A telegram from the mine, dated Thursday, states—"Mill run (eight weeks), 308 tons; net value, 720*l.*; ore sales, 100*l.*

Kohinoor and Donaldson, 1⅜ to 1½; the shares of the company are reported to have been in lively request, and extensive transactions have this week been effected. The telegram from the resident director on Thursday says—"Donaldson shaft entering rich run grey copper. Indication most satisfactory. Rich run ore coming in four drift."

Yuba River Gold Washing Company, par to ⅛ prem.; advices of a very encouraging character have been received from the mines, stating that heavy rains have set in earlier than usual, and that washing is proceeding vigorously; they will not, therefore, stop to clean up for the present.

An Olathe correspondent desires "to get a copy of the three famous telegrams received in June last from the mines and signed 'Ashton,' as it is understood that the originals are not in the keeping of the secretary." Surely telegrams are becoming dangerous to shareholders.

In Lead Mine Shares there has been practically nothing doing, and the price of the metal continues to fall, so that the prospects are anything but encouraging. Great Laxey, 17½ to 18, which is somewhat lower than last week, yet it has been difficult to effect sales, although the mines are prosperous, profitable, and admirably managed. An improvement in the price of lead is heartily hoped for. Roman Gravels, 9¾ to 10¼, and there have been some sales effected owing to the fine courses of ore now being developed, and expected further discoveries in driving the deeper levels at no very distant period. The sampling of ore this month is 300 tons, and which will be for sale next week; and notwithstanding the low price of ore this will leave a very good profit.

Tankerville Great Consols, 6s. 6d. to 8s. 6d.; and said to be in demand owing to the discovery of lead ore which is now being made at the "Potters' Pit" portion of the mine, and from which some rich rocks of ore were received at the offices of the company on Wednesday. There has been for many years a favourable opinion as to the ultimate success of this company's property upon its being vigorously developed. Reference is made to the full account of the meeting of shareholders held on Wednesday, which sets forth the satisfactory prospects of the several mines belonging to the company.

Leadhills, 3¼ to 3⅝; the mines continue to open out equally as well as stated in the manager's report published in last week's Journal.

Bwlch, 1¼ to 1⅜; another parcel of lead will be sampled on Oct. 30. The lode at the 100 fm. west is now producing good specimens of silver-lead ore of a most encouraging character, and the other points still continue to open out well for an early improvement.

West Lisburne, 1 to 1¼; the water power started on Oct. 18 is working well, and the mine has been already drained below the 8 fm. level. A full report of the new lode cut a few days ago will appear shortly; it is now thickly impregnated with large boulders and shoots of rich ore, coated with carbonate of lead, &c., of a most promising character for producing immense quantities of silver-lead ore.

At Bicton Silver-Lead Mine the shaft has, it is stated, now entered the lode, which is 9 ft. wide—a strong and masterly lode. Further report is daily expected.

The Hillidie Cable Tramway letters of allotment were sent out yesterday. The Hillidie Cable Tramway is confidently expected when at work to become as popular with the travelling public in this country as it has already proved in the United States and New Zealand.

GREAT HOLWAY.—The ore at Eyton's has further improved; other parts of the mine producing excellently: 50 tons of blende have been sampled. Next week a good sale of lead will take place.

PEN-YR-ORSEDD.—The shaft here is going down well. The north and middle lodes are expected to form a junction a little below the present depth. The meeting will be held in a few days, and important news expected.

DEVON FRIENDSHIP.—The new winding-machine will be in the mine in a few days, and the additional dressing machinery is in course of erection, so that now the means for largely increasing the returns will soon be in operation. A considerable extent of good ground is laid open to work upon at once.

RUSSELL UNITED.—The adjourned annual general meeting takes place on the mine on Monday. During the present week the agent has been driving by the side of the newly cut lode, and will take it down in time to report to the meeting.

SILVER HILL.—The tunnel has been driven 3 fms. during the past week in highly mineralised ground, and the cutting of Good Luck is momentarily expected. On Wheal Brothers' lode satisfactory progress is being made. The lode is very promising, being sufficiently rich for the whole of the lodestuff to be saved for treatment in the reduction works. Important discoveries are expected here very soon.

OLD SHEPHERDS MINES.—It is reported that the operations here are continuing to be carried on most satisfactorily, and the great event, that of reaching the ore ground at the 70, is very near. In the meantime the dressing of silver-lead extracted from the halvans is proceeding, and producing a higher proportion of ore than formerly. As there are tens of thousands of tons of halvans it is believed the returns from this source alone will be large.

TREVARREN UNITED.—We hear a large parcel of tin has just been sold from these mines, leaving a good margin of profit after all expenses are paid. This augurs well for the new company, for it is anticipated the proportionate cost under the new arrangements will be much less.

EAST WHEAL ROSE.—All force is concentrated on driving the levels towards Middleton's and Innes's lodes at the 20, which important event is likely to be accomplished before long. The competition for shares at last week's prices appear becoming keener every day, for it is expected when the lode is cut it will have a considerable influence on the prices.

SOUTH CARADON.—It is understood that the promoters of the new company for working the mine have accepted the terms offered by the committee of the former company, and that arrangements will shortly be completed for handing over control to a new staff of management.

MOUNTS BAY CONSOLS.—The chief event here during the week is reported to be a great improvement in the No. 5 lode, which appears likely to become the leading lode of the mine. In the Journal of the 14th inst. a correspondent said the No. 1 lode was a mine of itself, and if No. 5 lode be equal it seemed likely to have a great influence on the shares.

TRESAVEAN.—It is reported the output of ore from Wheal Boys shaft—the new part of the mine, all in virgin ground—is increasing in quantity and quality, and the returns of ore may be expected to be considerably increased in a week or two. The new tin lode (Gooch's) too, will no doubt now commence to produce a quantity of ore, which will add still more to the output.

BRATSBERG.—The monthly report just received shows the aggregate value of the different points in operation to be above 400*l.* There is at the port of Skien nearly sufficient ore for two cargoes waiting for shipment, besides upwards of 200 tons ready to send away at the mines.

COLOMBIAN HYDRAULIC.—A good demand is reported for these shares consequent on the receipt of advices showing a profit on the month's working of 943*l.*, with every assurance of a continuance of profitable results. This will be good news to many who have upheld this company through its various vicissitudes, strong in the belief that good results would eventually be obtained. We understand this profit has been made from gravel yielding by measurement only 7d. worth of gold to the cubic yard.

At Swansea Ticketing, on Oct. 17, 1491 tons of ore, of 10¼ average produce, and containing 156 tons 11⅝ cwts. of fine copper, were sold for 11,074*l.* 19s., being 7*l.* 8s. 7d. per ton of ore, 14s. 1¾d. per unit, or 70*l.* 14s. 7d. per ton of fine copper in the ore, and an average standard of 94*l.* 15s. 3d. for 9 per cent. produce. Subjoined are the particulars of the two last sales:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
May 30...	1227 ...	£ 92 17 2	7	£4 12 4	13s. 3¾d. ...	£66 11 3
Oct. 17...	1491 ...	94 15 3	10¼.....	7 8 7	14 1¾ ...	70 14 7

Compared with the last sale the advance has been in the standard 1*l.* 18s., and in the price per ton of ore 4s. The sales and amounts realised were—Spanish, 827 tons of 6 9-16 produce, 378*l.* 1s. 2d., or 13s. 10½d. per unit; New Quebrada, 300 tons of 10¼ produce, 222*l.*, or 14s. 7½d. per unit; Cambrian, 130 tons of 16 1-16 produce, 155*l.*, or 14s. 10½d. per unit; Betts Cove regulus, 36 tons of 25 3-16 produce, 64*l.* 1s., or 14s. 3½d. per unit; Virneberg, 44 tons of 15 7-16 produce, 46*l.* 14s., or 13s. 9½d. per unit; and copper residue, precipitate, matte, ashes, and regulus of various produce 154 tons, for 240*l.* 2s.= 1491 tons for 11,074*l.* 19s. There will be no sale on Oct. 31.

CONTROLLING THE FLOW OF WATER.—An improved apparatus for regulating the flow of water from cisterns has been invented by Mr. J. RAWSON, of Balsall Heath, and consists in fixing within the cistern a syphon tube, the longer leg of which has a short stand pipe in its lower end, which stand pipe is fitted with a balance valve, to which valve is connected the pull wire; upon raising this valve by means of the pull wire the water is admitted into the syphon, and the quantity allowed to flow is thus governed. Upon the head of the syphon is an air valve balanced to its seating, and a lever is attached to this valve, which lever is actuated by a float and line, so the valve may be adjusted to allow any desired flow of water from the cistern before the action of the float in descending will open the valve, and thus admitting air to the syphon prevent any further flow of water. Any other suitable contrivance for opening the air valve may be employed.

INSTITUTION OF MECHANICAL ENGINEERS.—At the meeting of members on Friday next—it will be held in the Memorial Hall, Manchester—the papers to be read and discussed are:—"On the Fromentin Automatic Boiler Feeder," by Mr. John Hayes, of London "On the Automatic Screw Brake," by Mr. W. Parker Smith, of London; and "On a Centrifugal Separator for Liquids of Different Specific Gravities," by W. Bergh, of London.

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200 Cootacovil.	30 Langford.	10 West Frances.
100 Coates.	100 Morfa Du.	20 West Kitty.
50 Devon Gt. United.	200 Mysore Reef.	35 West Devon.
100 Devon Friendship.	25 New Kitty.	10 West Peevor.
100 D'Eresby Mountain.	50 North Busy.	20 West Polbreen.
10 Dolcoath.	100 Norway Copper.	5 West Seton.
30 Drakewalls.	500 Old Owlacombe.	5 Wheal Agar.
55 East Blue Hills.	100 Parys Copper.	15 Wheal Basset.
30 East Buller.	100 Penhalls.	10 Wheal Grenville.
20 East Chiverton.	50 Phœnix United.	25 Wheal Jane.
10 East Pool.	4 South Caradon.	10 Wheal Kitty (St. Agnes).
50 Eberhardt.	20 South Condurrow.	
20 Frongoch.	100 South Crebor.	50 Wheal Uny.
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	46 South Devon.	150 Wheal Sisters.

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Date.	Mines.	Tons.	Price per ton.	Purchasers.
Oct. 24—	Foxdale	100	£11 17 0	Weston, Son, and Co.
—Pierrefitte		50	13 12 6	Quirk, Barton, and Co

Just published, 12mo., 5s. 6d., cloth (postage 4d.)

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Notices to Correspondents

West African Gold Mining Company.—As I fail to find any reference to this company, either in the list of mines or reports of workings, in the Journal, I should be glad if some correspondent would state whether the concern has any real existence, and, if so, what progress is being made?—H. H.: *Oakengates.*

Gold Mine Shares.—As a shareholder in the Great Southern Mysore Gold, La Concepcion, and Indian Mammoth Mines I should be glad if any correspondent would state, through the columns of the Journal, what has become of them, or how information concerning them can be obtained?—I. O.

Gold Amalgamating Company.—Can any correspondent state, through the Journal, whether there has been any allotment in this company, or whether it has fallen through, or upon the hands of the syndicate? Also, if floated, whether any contracts have been entered into for granting the use of the process to mineowners?—G. U. M.

New South Wales Coal.—"J. J. R." (Atherton),—The initials "A. A." are merely the abbreviation of Australian Agricultural. The company was formed by Act of Parliament and Royal Charter in 1824, with a capital of 500,000*l.*, in shares of 25*l.* each, upon which dividends are paid varying from about 8 per cent. to 16 per cent. per annum. The offices are in Gresham House, and Mr. W. Robinson is the secretary. The shares are quoted every week in the Journal, but they do not very often change hands.

Received,—"T. R. W." (New York)—"D. N."—"J. A."—"A. J. G."—"E. H." (Tavistock)—"E. T. M." (Exeter)—"J. E. S." (New Callao)—"F. A."—"W. T." (Cork)—"A J.R." (Boston)—"L.B." (Scranton)—"Shareholder" (Great Laxey).

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, OCTOBER 28, 1882.

THE PROPOSED LIMITATION OF THE OUTPUT OF COAL.

Nearly all our industries depend more or less on supplies of fuel, so that were these stopped even for a short time, or the price greatly increased, great numbers of workmen would inevitably suffer. But this very important fact has not deterred a few active agitators to counsel an entire stoppage in the first instance, and then a limitation of the output. They have not been at the trouble of informing their *clientèle* of the reason of the present state of things by which our power of producing coal is so much above the demand for it. They might have told them that it was brought about by the large profits realised by mineowners and the high wages received by miners during an exceptional period. The result of this now may be summed up in the words "too many coal mines, too many miners." Reduce the two to what can be called an appreciable extent, and then things would be better for a time; but no man is likely to be allowed to carry on a business in which heavy profits are made without some one going into the same and opposing him, and the same is the case as regards men getting high wages in any branch of trade—the money attracts the workman. But now owners of mines are making little or no profits and miners but low wages, and the question is how can this untoward state of things be remedied? The workmen's leaders say the only remedy is the restriction of the output of coal; but that restriction must be adapted to the requirements of the men without consideration being given to any other. There are three ways by which restriction can be put in practice in the raising of coal, and these we purpose noticing. During the past year the miners have been working as a rule not more than five days a week, and in some instances only four days. This shows that we have now at least one-sixth more collieries in the kingdom than there is work for them, and were these closed then the remainder would be able to command a good price for their coal and pay their workmen much better than they are now able to do. But those who volunteered to close their collieries would require some kind of compensation for the sacrifice made in the interests of those who remained in the trade. If we take 600 collieries as the number to be closed, and value each at 20,000*l.*, we have a total of 12,000,000*l.* If for this capital and the minimum rent an allowance is made by mineowners working at the rate of 5 per cent. there must be a fund of 600,000*l.* a year provided. Admitting that this might be paid for a time, no one could expect it to last, for there is no law by which a man or company could be prevented from sinking and opening out new mines, and the large profits made would inevitably result in production and demand being as they now are.

The second mode of restricting production without closing any of the mines would be by some 50,000 or 60,000 of the miners voluntarily leaving and going into other trades, receiving some compensation from their fellows. No doubt there would be considerable difficulty in obtaining volunteers on such terms, for even miners are no more self-sacrificing than other men. But were they to do so, then the same thing would arise with them as well as with the owners—higher wages would attract poorly-paid workmen into the mines, so that in the course of time we should revert back to something like the existing state of things. The next mode of restricting production, and advocated by the leaders of the miners, is working only four or five days a week and producing just sufficient coal to meet the demand, and compelling consumers in consequence to pay a high price for it. This would be increasing the price in two ways, for besides the limitation itself, there would be the increased cost incurred in getting a much less quantity of coal than the machinery, horses, enginemen, and labourers are capable of doing. Horses have to be kept whether they work or not; managers and clerks have also to be maintained at about the same rate whether the men work six or eight hours a day, or four or six days a week. But need we say that the result of any one of these systems would be most disastrous to the trade of the country? It is in consequence of cheap fuel that most of our great industries are in their present comparatively flourishing state. Increase the price of it materially, and the most powerful brake is applied for stopping it. If we take the case of pig-iron we find that an increase of 1s. per ton in coal makes the iron 2s. per ton dearer to make than it now is, and steel of course a great deal more. On the Continent there is a great deal of competition in steel in particular, so that the difference of 2s. or 3s. a ton in the price would put us out of a great many markets, diminish our production, and, of course, lower the workmen's wages. It is the same with coal itself. We now export nearly one-seventh of all the coal that is raised in the kingdom, and this is the result of the low price at which we are able to sell it. We supply several of the most important countries on the Continent, Germany being our best customer. But the coalowners in the last-named State have been treading closely upon our heels, not only in their own markets, but others as well. In 1861 Germany produced 14,132,000 tons of coal, and in 1881 no less than 48,698,000 tons—a rate of progression hitherto unknown in any part of the world. An extra shilling per ton put on to the price of coal exported to the various States of Europe would result in our losing many of our best markets, and stimulating the German and other continental nations to more fully and rapidly develope their own vast mineral resources. These are home and foreign facts that if not taken into consideration at the present time will be forced upon both our mineowners and miners when it is, perhaps, too late to retrieve the past folly or prevent a downward course, by which the miners as well as some other workmen will be the greatest sufferers.

COMMERCIAL VALUE OF GAS COALS AND CANNELS.

At a time like the present, when the anxiety to obtain materials at a low price almost annihilates the idea of considering the quality, such a volume as that of Mr. Graham—"A Treatise on the Comparative Commercial Values of Gas Coals and Cannels." By David A. Graham, engineer. London: E. and F. N. Spon, Charing Cross—is particularly worthy of attention, since his object has been to investigate the question whether the low cost of the coal is the principal cause of cheapness of the gas produced from it. The importance of the subject to those interested in obtaining a commercial profit from the manufacture and supply of gas is beyond question, and it is of indirect importance to consumers, inasmuch as the price charged for the gas will necessarily depend upon the minimum price at which the manufacturers can produce it. Mr. Graham is by no means new to the task he has undertaken, and he has given his readers the advantage of his continued study by furnishing tables where he before used calculation, by substituting constants for proportion, and so on. He directs particular attention to the difference between the results obtained in laboratory experiments and in practice, very truly remarking that in laboratory experiments, where the 1000th or 500th part of a ton is experimented upon, and when the duration of the charge does not exceed three or four hours, the coal or Cannel is subjected to a high heat, and lies in a thin layer on the bottom of the retort, enabling the gas during the disintegration of the coal to be liberated from the centre of its mass much more freely than is usually the case with practical working and six hours' charging; in the latter case some products which would be rendered gaseous in the small experimental retort are in the larger one converted into tar. The consequence is that large results are usually obtained—more especially as regards volume—with experimental working.

For purposes of commercial valuation the volume of gas produced from a ton of coal or Cannel will be, Mr. Graham remarks, that quantity which will be obtained from carbonising a reasonably large quantity of the material to be tested in a good sound retort raised to a fair heat, the coke being withdrawn as soon as it becomes heated to redness and ceases to give off other than carbonic acid or carbonic oxide gas, or hydrocarbons of very low illuminating power, a condition usually obtained by retaining a charge in a retort from three and four to six hours, the best results being those which are obtained from the highest numbers found by multiplying the quantity produced in cubic feet by the quality of the gas produced in candles; thus 10,000×15 candles = 150 would give a better result than 11,000×12 candles = 132, the carbonic oxide or hydrocarbons of very low illuminating power reducing the resulting integers to a less number than the result giving the lesser production of cubic feet of gas per ton, but a larger illuminating power; a rule which may prove serviceable for practical economic working, and one applicable to several other purposes in gas manufacture. Mr. Graham gives an instance of a setting of retorts to carbonise 800 tons to 1000 tons of coal and Cannel per annum, and remarks that a setting of retorts with connections, roofing, and walls complete will cost about 500*l.*, 10 per cent. upon which is 50*l.*, which, divided by 1000 tons, equals 1s. per ton for interest on each setting of retorts; it will be evident that the poorer the quality or productive power of the coal or Cannel used the greater must be the number of retort settings in use, so must the interest charged be proportionately increased for working the poor coal as compared with the richer one, and in a comparative valuation this difference resolves itself into a charge against the poorer material. Taking the cost of renewals and repairs at 1s. per ton of coal and Cannel carbonised, these several charges will be 6·666s. when the coal yields 10,000 cubic feet, 6·0606s. when it yields 11,000 cubic feet, and 7·4s. when it yields 9000 cubic feet. The practical character of the information given will be best appreciated from the fact that the reader is enabled quickly to determine the commercial advantages of using one or another coal by solving such questions as—Given a coal producing 9440 cubic feet of 15·9 candle gas, 245 lbs. of tar, 190 lbs. of ammonia water having a strength equal to 5° Twaddel, and also producing 1460 lbs. of coke containing 5 per cent. of ash. What was its value as compared with that of the standard coal? It need scarcely be said that the ability to solve problems of this kind enables the manager of a gas works to do much towards realising a profit instead of a loss.

The work as a whole will prove of great practical utility to a large number of readers, and as Mr. Graham has been careful to give his directions for obtaining the required results in such a way that those using the book will be able to perform the calculations and comprehend the tables and diagrams without much previous study, it is likely to have a wide circulation.

THE JOHN COCKERILL COMPANY.

This important Belgian industrial undertaking has just reported progress for 1881. The manager, M. Sadoine, complains of the somewhat unremunerative character of the orders received; on the other hand, the general business of the company has been increased to such an extent as to counterbalance the smallness of the profit yielded by each transaction. The enterprises of the John Cockerill Company are, indeed, growing in importance every year. This is shown in the great increase in the number of the company's workpeople. In 1880 the company had a staff of 8225 men; at the close of 1881 this total had been carried to more than 9000 men, and it now amounts to 11,000 men. With such a working staff as this, the John Cockerill Company, of course, occupies a foremost place in the national industry of Belgium. It not only contributes to the general reputation of Belgium, but it also supports 11,000 workmen and their families. The combined value of the production effected in the various departments of the company's operations was carried in 1881 to 1,720,000*l.*, notwithstanding somewhat unfortunate consequences, resulting from a serious inundation to some of the company's coal mines in 1880. The total of 1,720,000*l.*, representing the value of last year's production, is the highest hitherto attained by the company in any 12 months. The rough profits realised by the company in 1881 amounted to 140,000*l.* in round figures, but an important sum was written off for depreciation of plant and premises. Sundry other statutory deductions were also made, so that the profits of the year were reduced to 65,187*l.*, against 51,968*l.* in 1880. The substantial profit realised for 1881 will admit of a dividend at the rate of 2*l.* 16s. per share. This, it will be seen, was an excellent result, the corresponding dividend paid in 1877 having been 1*l.* 8s. per share; in 1878, 2*l.* per share; in 1879, 1*l.* 8s. per share; in 1880, 2*l.* per share; and in 1881, 2*l.* per share. It will be seen that the dividend paid this year was just double that distributed in 1877.

The capital of the company is 600,000*l.* The reserve fund amounts to 58,960*l.*, and the company has further formed a floating capital fund of 60,000*l.*, and a special fund of 44,800*l.* The company has obligations, or small debentures, outstanding to the extent of 114,000*l.*, and it owes besides to its bankers 125,160*l.* On the other hand the company's property stands as follows:—Premises, estimated value, 240,000*l.*; fittings, tools, utensils, &c., estimated value, 480,000*l.*; materials, store, &c., estimated value, 360,000*l.*; securities, 80,000*l.*; balances due to the company, 490,000*l.* The addition made to the reserve fund last year did not exceed 2320*l.*, but a further sum of 18,779*l.* was also carried forward. The collieries of the company were worked at a loss in 1881. This was due to the disastrous effects attending the inundation of 1880, and to an explosion of fire-damp in the Marie Colliery in the course of last year. The Seraing workshops were well employed last year, particularly the ironworks and the mechanical construction establishments. The results obtained at the Hoboken shipbuilding yards of the company in 1881 did not realise the expectations formed respecting them, and the manager attributes this disappointment not to an absolute want of work, but to the absence of a suitable and efficient staff of workpeople. The company has endeavoured to meet this difficulty by obtaining the services of Dutch workmen, but it has been checked in this experiment by a want of house accommodation for these new recruits near its works. The steamers owned by the company yielded favourable results in 1881, notwithstanding the total loss of the Archiduc Rodolphe in November, which entailed a deduction from the insurance fund of about 8000*l.* The company now owns four steamers—the Concha, the Vena, the Princesse Stéphanie, and the Prince Bauduin—and it is further building at the present time the Princesse Clémentine, as well as a new Archiduc Rodolphe. These steamers will be ready for sea in the course of 1882-3, and a seventh vessel, the Princesse Henriette, is intended to be brought into working in 1883-4. Should the views of the manager be acted upon, the company will gradually increase the number of its steamers to 12. It is necessary that the company should own a flotilla of this importance, as its deliveries by sea are increasing day by day, whilst it has also to import large quantities of iron minerals from Spain and the Mediterranean. The profit obtained in 1881 upon the capital engaged in the existing steamers of the company was at the rate of 30 per cent. per annum; and further, by having its own steamers at its disposal, the company has not to sustain the losses and inconveniences resulting from sudden advances in freights.

THE MANUFACTURE OF CRUCIBLE STEEL.

Of late years more than usual attention has been devoted to the production of steel, so that qualities adapted for all purposes are now easily turned out. The leading ingredient of each grade of steel is ascertained. All the usual ingredients give what is called body to steel, carbon, within specific limits, giving hardness, elasticity, resistance to statical strains, and tempering qualities, whilst manganese gives different properties—hardness, toughness, and malleability. It is also quite probable that there is a proportion of carbon and manganese which would give the highest possible value to all structural steel. Sheffield is, as it has always been, the chief pla e for the manfacture of steel, which is made from hematite pig. In connection with a furnace there are a number of holes, or fires, arranged, it may be, on both sides of it, with teeming holes, as they are termed, and in which the ingot moulds are placed. The teeming holes are covered with iron plates level with the floor of the furnace. Each of the fires has its own flue, and these are carried in groups of five or six, and so form a stack, each also being so arranged that the draught is so regulated that the melter can have all the pits or crucibles ready for casting at the same time. Each fire holds two pots, and these are raised a little from the bars, and when charged the pots are covered with plates made of a refractory material. The crucibles are from 16 to 20 in. in height, and about 10 in. in diameter. When ready the pots are placed in the melting hole, a quantity of fire being placed in the grate. Coke is then put on a level with the pots, and the heat gradually raised, when in the course of some 20 or 30 minutes they are ready for charging. When the fire has burnt nearly out the lids of the crucibles are turned off, when the melter inserts a rod of iron into each of them for the purpose of ascertaining whether there is any of the raw metal unmelted. If the metal has not been long enough in the fire it emits sparks, and the ingot is deteriorated by blisters, and if it remains in too long it is also of inferior quality. The moulds into which the ingots are thrown are of cast-iron, folded in two, so as to admit of the ingot being at once removed on being cast. When the metal has to be worked under the hammer the crucibles are emptied into a ladle with a plug at the bottom, and the steel can be tapped from the ladle, and so poured in a continuous stream into the mould, or the pots may be emptied into the mould by men. This is the way cast-steel is made from converted bars, sometimes in connection with manganese or spegeleisen, giving homogeneous steel. But we are told that the larger proportion of steel is made direct from malleable iron bars. By this mode the bars are cut into small pieces an inch or less in diameter, and then put into the pots along with a little charcoal, according to the peculiar description of steel required, and, after the second fire has been nearly exhausted, spegeleisen is added, and then the operation goes on the same as for the other quality of steel. When a soft steel is required no charcoal is put in the pot, but a different crucible is used, being composed principally of plumbago, with just enough fire-clay to give the required elasticity. This description of pot, it appears, gives off a sufficient quantity of carbon to convert the iron into steel, only requiring a small quantity of spegeleisen.

For hard steel of a special quality, such as is largely used by the Sheffield cutlery manufacturers, charcoal is added with a little oxide of manganese, but without any spiegeleisen. Charcoal is made from various descriptions of wood, but that produced from oak is considered about the best. For the production of the finest qualities of cast steel Swedish bars are, of course, the best, owing to their comparative freedom from sulphur and phosphorus, which are considered the great enemies of the steel manufacturer, although some of our specialists believe that even phosphorus may in some degree be a valuable ingredient in connection with the manufacture of steel. The Dannemora ore only contains about 0·003 per cent. of phosphorus, and that of Persberg 0·005 per cent. The Sherman process for improving the quality of steel consists of the introduction of iodine of potassium, by which the sulphur and phosphorus is removed, owing to the powerful affinity existing between the elements. At one of the large French works the last-named system has been carried on, but it became necessary to add besides the ordinary dose of iodine of potassium two other kilogrammes of other reagents, besides spiegeleisen. At another place there is an entirely different system, the process consisting in the addition of ferromanganese or a mixture of iron silicon and manganese to a bath of spiegel iron. The metal is run into chilled moulds so as to cool rapidly, and then it is reheated and tempered, and then is said to be perfectly homogeneous and free from "blows" with a density of 7·78 to 7·91. The steel behaves well under the hammer and between the rolls, and is said to have remarkable qualities as regards its limits of elasticity and of breaking strain, which would make it especially serviceable for the manufacture of heavy ordnance. What is known as the Lancashire process for refining iron is practised both at home and abroad. It consists in the treatment of the metal in small closed hearths, and is then reheated in separate furnaces. In the Dannemora Works the Walloon process is carried out, and consists in two hearths working together, the bloom being heated in one, reheated in the other, and drawn from the latter to the hammer. This metal is much used by the Sheffield steel makers from the circumstance of its rapid conversion into steel. It may be said that there are many grades of steel produced, both hard and soft. Rail steel is soft, so is boiler-plate steel, as compared with many structural steels, and with the whole range of spring and tool sheets—whilst the ones well adapted for rails would be entirely useless for boilers. However, the processes in the manufacture of steel are most interesting, and require considerable skill on the part of the melters, especially in obtaining perfectly accurate grades in large quantities.

Value of Colliery Property in Yorkshire.—Mr. E. G. Lancaster, of the firm of Lancaster and Sons, Barnsley, offered for sale, on Wednesday, at the King's Head Hotel, Barnsley, the Mitchell Main Colliery, Wombwell, near Barnsley, as a going concern. The sale was by order of the High Court, in an action Mitchell *v.* Josse. The auctioneer stated that there were originally 358 acres of coal, with a minimum rent of 5315*l.* The present minimum was 4500*l.*, and in 1890 it would be reduced to 3210*l.*, and in 1893 to 1500*l.* a year. There were still 242 acres of coal to be got, or about 2,400,000 tons, from the present shafts, and of that quantity about a sixth had been paid for, and the purchaser would have the advantage of getting the coal without paying for it. The coal was a splendid section of the Barnsley bed, 8 ft. in thickness. There were three large and powerful engines, capable of drawing 2 tons of coal per minute, or 1000 tons in a working day of eight hours. The whole of the works were of the most substantial character. The colliery had access to the Manchester, Sheffield, and Lincolnshire Railway, and the Dearne and Dove Canal, and would soon have also the Hull and Barnsley line. On surface there were 4½ acres of freehold land, 650 tons of tramways, and 52 coke ovens, out of which a handsome profit was last year realised. The colliery, which had only just been fully developed, cost 121,000*l.* He did not expect to realise that amount by this sale, but was

quite sure, with the good times which were evidently near at hand, there was a handsome fortune in the colliery for the purchaser at the present sale. Biddings were then taken. They started at 10,000*l.*, and eventually reached 21,500*l.*, bid by Mr. T. Wilkinson, corn factor, when the colliery was withdrawn, the reserve not being declared. The auctioneer also offered the engineering works lately occupied by Parker Bros., at Summer-lane Station, Barnsley. He said the machinery cost over 6000*l.*, and there were two acres of land and the substantial buildings. The biddings reached 2100*l.*, and the reserve was declared at 3500*l.*, which figure not being reached, it was withdrawn.

THE AMERICAN TIN TRADE—STATISTICS OF TIN.

Sept. 1, 1882.—Stock in all hands, New York, Boston, and Philadelphia	Tons		875
Imported during Sept. Straits and Malacca, into Boston		*nil*	
" " " into New York		570	
" " Australian, " "		360	
" " L. & F. " "		170	
" " Banca and Billiton "		15=	1,115
Total			1,990
Consumption—During September	Tons		1,100
Total spot Stock			890
Afloat to date, Straits and Malacca, July, Aug., and Sept. shipments, per steamers	Tons	2,075	
ditto ditto per sail		50=	2,125
Totals in all hands, spot and afloat	Tons		3,015

With the opening of the Fall trade we have to report an increased volume of business in all the principal branches of the metal trade; to supply our large consumption out of our reduced stocks, without unduly raising prices of various articles, has been the great object of both buyers and sellers during the past month. This has been accomplished to the general satisfaction, owing to the dormant state of speculation and to the great caution exercised by dealers and consumers in providing for their necessities.

Tin.—Immediately at the opening of the past month, pressing enquiries on the part of out-of-town dealers and consumers, continued to absorb with avidity the small stocks of tin remaining in the hands of a few of our principal dealers, at prices varying from 25⅛ to 25⅜ for Straits or Malacca on the spot; but by the middle of the month, in the absence of fresh arrivals, spot tin advanced suddenly to 25¾ to 26c. from sheer necessity. Since then prices have been steadily maintained up to within the last few days, when on the arrival of several lines of Straits and Australian, a gradual reduction in prices took place, and 25⅛ is the general asking price at the close. While spot quotations thus considerably improved, transactions to arrive could only be carried through upon a lower basis regulated by the probable dates of arrival; thus, while shipments near at hand realised 25c., July and August steam were taken at 24⅞ to 24½; August and September from 24¼ to 24½, and September and October 24⅛, importers being very chary in offering future shipments, as present high prices in the East are leaving no margin of profit to the shipper. We estimate the total transactions during the month at fully 2000 tons, including resales. The London market opened strong and advanced steadily from 102*l.* 5s. for spot to 108*l.* 15s., which was reached on the 21st, since then realisation of profits as well as the usual manipulations of speculators have brought about a reaction to 107*l.* 5s. spot. This, no doubt, shows a substantial improvement of 5*l.* per ton during the month, and in addition we may be allowed to draw from this the conclusion that the London operators have at last begun to understand the position of our market, and the manner in which it acts and reacts upon their own. The mistaken idea prevailed in Europe that we were overstocking our market by our large purchases in the East, and that sooner or later we would have to cease buying, and thus would be compelled to leave the field clear in the East for the London operators to step in and replace their exhausted stocks at their own valuation. All the while, however, they were letting their stocks fall lower, so that to-day the total visible supply is reduced to 6600 tons, as against 10,500 tons on May 1, showing a loss of 3900 tons in five months; in view of the small quantity afloat at present, we cannot be far wrong in calculating upon a further reduction by December, leaving London's visible supply below 5000 tons. As the time is now fast approaching when we shall be able to import from Europe Eastern produce free of duty, it would certainly be the height of imprudence for our importers to rely upon the London market for supplying our wants next year at a moderate price at a time when their stocks shall have been reduced to such a low point as to enable a few bold operators to control the whole available supply for both Europe and the United States, and thus dictate their own terms. The Eastern markets, owing to large orders from India and China, and moderate ones from Great Britain and the United States, have steadily improved throughout the whole month, closing steady at the highest quotations—$33½ at Singapore, 833 at Penang, and their available stocks greatly reduced. The total quantity shipped westward from the Straits amounted to 700 tons per steam to the United States, and 250 tons to Great Britain. At the regular bi-monthly Banca sale at Rotterdam, on Sept. 27, the usual quantity 23,400 slabs were sold at an average price of 65 fls. per 50 kilogs., equal to 109*l.* per ton. Subjoined are the figures of importations and floating supplies during the first nine months of the present year as compared with the same period last year.

Subjoined are the figures of importations and floating supplies during the first nine months of the present year as compared with the same period last year:—

Arrivals in New York and Boston, Jan. 1 to Oct. 1:—		1882.	1881.
Straits and Malacca	Tons	4390	4657
Australian		910	722
L. and F. and refined		545	205
Banca and Billiton		205	141
Total	Tons	6050	5725
Afloat on Oct. 1:—			
Straits and Malacca	Tons	2125	1965
Australian		—	—
Billiton		—	—
Total	Tons	2125	1965

Our closing prices to-day are 24½ c. to 25½ c. spot for Straits and Malacca; Singapore quoted $33¼, Penang $33; exchange on London 3s. 9⅛d.—*New York, Oct. 2.* Edward P. White and Co.

American Mining Law—Timber.—The cost of timber being an important item in connection with mining operations the decision given at Washington on Oct. 2 regarding the cutting of timber on mining claims will be of general interest. Some time since, says the New York Mining Record, the commissioner of the general land office addressed a communication to the secretary of the interior, with reference to the rights of millowners and residents upon mineral lands to cut wood and timber on these lands within the lines of mining claims. In this communication the commissioner expressed the opinion that the locator upon such lands is unable to protect himself in the courts or otherwise, for the reason that he has only a possessor's right to the lands, subject to certain subsequent conditions before he can obtain a patent. The commissioner also stated that, although the title to the land is still in the United States, the Government under the existing law and the regulations prescribed for the protection of the timber and undergrowth growing upon such lands, cannot protect the locator. He also indicated that regulations may be made in favour of the mining locators of the timber growing upon their claims, and that trespassers might be punished for a violation of such regulations under the general provision of the law against the cutting of timber on the public domain. To-day Secretary Teller replied to this communication. It appears that he does not concur in the commissioner's views of the law. He holds that the locators of mining claims, so long as they comply with the law governing their possession, are invested by Congress with the exclusive right of possession and enjoyment of all the surveys included within the lands of their location. The secretary says: "This right amounts to a property capable of being enjoyed or transferred subject to all ordinary rules governing the enjoyment of other property, entirely separable and separate from the fee of the land. It may consequently be protected in the courts, and if trespass be made, it is the duty of the possessor to care for his own. If he neglect to protect himself and his possession, the law does not assume that the United States is injured by the cutting and use of the timber on such, nor does it impose upon the Government the duty of intervening to save the individual occupant what has been declared to be his private property by virtue of his location. Having armed the locator with a complete grant to the possession, he alone is concerned for its protection, and may undoubtedly maintain suit to that end; but he can no longer, after availing himself of the exclusive right, ask the Government to bring action for what is no trespass except against such individual right of possession."

GOLD MINES OF COLOMBIA—THE ORGANOS AND ORITA.

More than ordinary attention has been directed to the progress of the Organos and Oritá mines in consequence of the promoters of the companies formed to work them having reverted to the good old custom, now almost forgotten, of using the shareholders' money for the development of a mine—a principle which, apart from the circumstance that the shareholders are ensured their fair proportion of the profits, has the great advantage that, as the benefit to the promoters is dependent upon success, they have the utmost possible inducement to bring the concern into sound working order. That this is indeed the effect produced is evident from what has been done at the Organos Mine, whence the last report with advices of crushing is most encouraging. Such a handsome produce as 1½ oz. of gold to the ton of mineral is one for which but too many existing companies, with ten times the amount of capital, would be heartily thankful. Yet it appears that, but for an unavoidable loss of the precious metal, owing to the arrangements for extraction not having been completed, the returns would have been still larger; indeed, it is confidently anticipated that next month's return will show a far better yield.

In this case there is no mystery nor equivocation with regard to the announcement received from the mines, for there is little ambiguity in the statement that 19¼ tons of quartz were treated, and that from it 2 lbs. 6 ozs. of gold was obtained, being at the rate of 1½ oz. of gold per ton. This crushing, moreover, appears to have been made with the Britten pans and not with the stamps, which do not seem to have been quite completed; it is upon this ground that larger results next month are looked forward to. In communicating these satisfactory results to the shareholders it is pointed out that, when considering these figures, it should be remembered that, according to the prospectus, the capital of the company being so small, a yield of gold at the rate of only ¾ oz. per ton would reasonably justify the shareholders in looking "for the return of their capital in the shape of dividends every year." Practical experience, therefore, that the quartz at Organos will yield 1½ oz. of gold per ton cannot but be considered exceedingly satisfactory. It is further noted that but for a robbery which has taken place of the company's amalgam, the yield would have been much larger, and it is to be anticipated that the next return of gold, which will be for the month of September (and will be made with the machinery closed in under lock and key), will show a much higher average of gold per ton of quartz treated. The whole matter is fully referred to in the report of the assayer—Mr. F. C. Mills—which states that on Saturday, Aug. 26, the whole of the four machines were tapped and cleaned. On Monday following the mercury was retorted off, and in the retort was left a mixture of gold and iron. The weight of the resulting gold was 30 ozs. However, when he came to weigh the mercury that was obtained from the retorting, he found there were 191 ozs. missing—1443 ozs. having been put in the four machines, and only 1252 ozs. obtained from the retorting. He can only give one explanation of such a loss—robbery. By whom, he had not been able to discover; he was sure, however, none had been taken out during the daytime, as he had been there himself, as also several nights until midnight. It must, therefore, have been extracted some night or nights, and, as the mill at present is open, this may not have been difficult. As it has been decided to close in the mill before recommencing work, of course such a robbery cannot take place again.

The superintendent's report is equally encouraging, and it is not doubted that the permanence of the property is now assured. They are evidently getting the mines in good working order, and placing an excellent plant upon the surface, whilst they have sufficient working capital at command to place the mine in a profitable condition.

Nor are the prospects of the Oritá Company less bright than those of the Organos. The Oritá, it will be remembered, was brought forward under similar auspices, and upon a similar principle; it is regarded as an equally certain success, because there is little or no speculation about hydraulic mining, and because the adjoining property, in which the run of gravel is identical with that of Oritá, both as regards contents of gold and otherwise, is now yielding a large monthly return, that for August showing a profit of 1000*l.* The works at Oritá are being laid out on a scale seven times as large as those of the Colombia Company adjoining, and that plenty of mineral will be found in the Oritá property to keep them going cannot be doubted, when it is remembered that in reporting upon it Mr. W. Hoskin remarked:—The Oritá estate is an immense property, containing probably over 10,000 acres, provided with abundance of timber and water, and offers a fine field for hydraulic mining on a large scale. I may remark that I carefully examined Malpaso (this is the adjoining mine, belonging to the Colombian Hydraulic Company already mentioned) before going over this property, and there can be no doubt of its being the same deposit, or, I should say, a continuation of it. But a short time has elapsed since the company was inaugurated, yet much has been done toward making the mineral available, and it is confidently anticipated that the promises put forward in the prospectus will be more than realised.

That energy and good management has much to do with securing the success of a mine, wherever it may be situated, has been so long acknowledged that it may be taken for granted, yet it will scarcely be doubted that in a district inherently rich the chances and amount of profit are larger than elsewhere; and in this respect the mines now under consideration are certainly most favourably placed, for so great are the mineral resources of the United States of Colombia that at the present moment most if not all the mines in the country are proving successful. Frontino has frequently been mentioned as one of the richest mines known; the Western Andes has paid large dividends for a considerable period; Tolima has also paid dividends for years—the last month's (August) profits being over 4000*l.*; whilst the Colombian Hydraulic Company last month made a profit of 1000*l.*, as already stated, and the shareholders of the Organos are congratulating themselves that their mineral is yielding a larger proportion of gold per ton than any other mines recently placed before the public, and those of the Oritá are satisfied that their property cannot help proving a success.

Pyrenean Mine.—The existence of argentiferous copper ore in the Pyrenees of Navarre, containing more than 20 lbs. of silver to the ton, has been proved by a sample collected by Mr. Genreau, Government Mining Engineer of the Basses Pyrenees, and assayed at the Bureau des Essais, of the Paris Ecole des Mines. A railway, due to the solicitude of M. de Freycinet, the late French Premier, himself a mining engineer, is now in rapid construction, with a view to the development of this formerly celebrated mining district, from which magnificent results were obtained in the last century. Already the proprietors of argentiferous copper mines, practically abandoned since the financial disasters of the French Revolution, are asking higher prices than they would have accepted for their property three years ago. One of the mines has, however, passed into English hands, as may be seen by an advertisement in another column, and a detailed descriptive report has been made by Mr. P. W. Stuart-Menteath, A.R.S.M., who is well known in the Pyrenees as actively exploring the geology and mines of the chain during the last fifteen years, his first papers on the subject having appeared in the Bulletins of the Société Ramond of 1866. He contributed last year to the Bulletin of the Société Géologique de France the first geological and mining map of the Pyrenees of Navarre, Guipuzcoa, and Labourd, accompanied with numerous sections explaining the structure of the region; and there has recently been published in the *Mining Journal* his comparative estimate of the advantages offered to mining students by the rival schools of Clausthal and Frieberg. It is stated, moreover, that the account of the geology and mines of Spain in the well-known series, "Foreign Countries," was executed by the same writer, who has extended his studies to the greater part of the Peninsula. Mr. Stuart-Menteath is consequently enabled to apply both widely, varied, and thorough local knowledge in his estimates of Pyrenean mines. His opinion of the mine in question is thus summarised:—"Having personally explored nearly every valley of the Pyrenean chain while engaged in the study of the geology and mineral resources of the range, I have no hesitation in recording my conviction that the mine presents, as now offered to the public, the most promising mining adventure to be found in the Pyrenees; and in this opinion I am at one with such scientific mining authorities as are acquainted with the mine in question."

THE LEADVILLE MINING DISTRICT.

So many British capitalists are interested in Leadville mines that it will afford general gratification to learn that the daily production at the present time is larger than at any one period heretofore, and aggregates fully 1410 tons. Among those to which the readers of the *Mining Journal* will direct especial attention are the La Plata Mining and Smelting Company's Mines, which are yielding 30 tons per day; the Terrible and Adelaide Mines, 10 tons daily of siliceous silver, gold, and lead bearing ore; the Henriett Mine, turning out 65 tons of high grade lead ore per day; and the Carbonate Hill Company's Yankee Doodle Mine. Taking the produce by districts, or rather sub-districts, it is found that the figures are:—Iron Hill and California gulch, 670 tons; Breece Hill and Ball Mountain, 140 tons; Little Ellen and Big Evans gulch, 35 tons; Fryer and Yankee Hill, 221 tons; Carbonate Hill mines, 308 tons; and other districts, 36 tons=total daily output, 1410 tons, as already stated. The shareholders in La Plata and in Henriett may be congratulated upon the districts in which they are working giving the best results even in the rich Leadville district. It seems not unlikely that Leadville will become noted for its auriferous wealth as well as for its riches in lead and silver, for the Democrat (Sept. 24) says:—Mr. John Devlin, who has been engaged for some weeks past in sinking a shaft to bed rock in California gulch, in the upper portion of Oro City—that is the older portion of what is now called Leadville—struck the solid rock at a depth of 48 feet. Nearly the entire alluvial deposit was found in the condition of a solid cement. The last 4 ft. of the shaft, however, passed through fine gravel, prospecting very rich in gold; in fact, the entire depth of the shaft shows gold in sufficient quantities to assure good pay. The very name "Oro" would indicate that the place was first recognised as a gold district, and, although the lead and silver alone are ample permanently to establish the reputation of Leadville.

At the Denver Exhibition the latest sensation is that produced by the Yankee Girl, of Ouray, and, since whatever increases the profits of shareholders in Colorado mines will add to the market value of all the mines in the State, brief reference may be made to it. It appears that four poor prospectors staked on Aug. 16 a claim which has proved to be one of the largest veins of clean solid ore ever found in Colorado. In fact, it is doubted whether anything can equal the size of ore body with richness of mineral. Since the date of discovery of this vein and Congress Mine, Red Mountain have been prospected from end to end, and hundreds of locations have been made. Miners and prospectors by scores have visited the new strike, and their statements vary only as to calculations of how many hundred thousand tons of ore can be taken out. Among those who went up was Mr. George Crawford, a heavy operator of mines. He had heard of the hugeness of the ore body, and for this reason he examined the property. He did examine the mine thoroughly, and completely prospected above and below, and found the same character of ore as in the open cut; he also had mill runs made, and finally became so perfectly satisfied with the prospect that he concluded to settle right down on the property till he was the owner. In the result the Yankee Girl has now been acquired at the price of 25,000*l.* by Messrs. Crawford, Posey, Atwood, and Irvine, and upon that price a good profit can be made by economic and energetic working. The body of ore on Yankee Girl averages 8 ft. in width. Open cut where mineral is exposed shows a solid mass of ore with not a touch of gouge or quartz, that is 8 ft. wide and 12 ft. high. Prospecting 100 ft. on each side of cut revealed the same kind of mineral precisely as is found in the breast, and the pay-streak averaging same width. Mills runs have been made; first test resulted in 116 ozs. of silver and 50 per cent. lead; and a second test returned 16 ozs. silver to the ton and 10 or 15 per cent. in lead. This ore is not in streaks on the vein; but is in solid compact body, and they class the ore in but one grade. A sample of ore from a depth of 10 ft., weighing 140 lbs., was taken to Ouray by the original owners, and a mill run gave 88 ozs. silver and 56 per cent. lead. This property is located 11 miles from Silverton, and 2 miles beyond Congress Copper Mine. Situated in the lowest pass on Red Mountain, 1000 ft. below timber line, it is easily accessible, and in splendid position for working. The grade from this city to the mine is slight and uniform, and a first-class wagon road could be cheaply built. These statements, backed by the mine itself, and vouched for by others who have seen the property, might prove conclusively that the Yankee Girl is the biggest silver mine in the country, considering the enormity of the body and the richness of the ore.

But, returning to Leadville, the latest details to hand will be particularly gratifying to those who, like the Henriett shareholders, are interested in Upper Carbonate Hill, for the best local authority does not hesitate to say that the section of Carbonate Hill, located just east of the Evening and Morning Star Mines, is unquestionably one of the richest and most promising in the entire Leadville district. Nearly every shaft sunk to contact in this portion of the hill shows strong and high grade bodies of carbonate ore. It is, therefore, with pleasure that we learned of a movement rapidly assuming shape, and promising at an early day to ensure the consolidation of large tracts of the most desirable territory. The properties in question embrace the Clontarf, Brookland, Wolfe Tone, Agassiz, and one or two other lodes, all of which disclose ore. The majority of these properties are owned by stock companies, and the movement is begun by securing options on the stock of the different companies. The enterprise includes in it Mr. Nicholas Finn, of Cummings and Finns, smelters, and others of equally good standing, who are backed by English capitalists. Already a seven months' option has been secured on the bulk of the St. Bernard Mining Company's stock, controlling the Clontarf Mine, and negociations are at present pending with the principal owners of the stock of the Brookland and Agassiz Mining Companies. That there are millions of dollars worth buried in the strong contact of these properties there is not the slightest doubt, and a company of means would do much better with the properties if worked in the aggregate than if each company struggled along singly and alone.

Conflict of territory and want of means among some of the owners will be obviated by a consolidation, and the other emergencies would be provided for. The natural physical advantages gained will also prove an important consideration, and add to the economical working of the properties. The only disadvantages presented by these properties are the depth to the ore bodies and the flow of the water, and these are not difficulties of any magnitude, at least for a company of any means to cope with. In fact, if the money already expended in hoisting and pumping machinery on these properties had been concentrated into one plant everything would be going well now, and the output of Leadville district would now be several hundred tons a day greater than it is at present. There is no reason to doubt but that a consolidation of the Agassiz, Brookland, Clontarf, Wolfe Tone, Big Chief, and Castle View lodes would form a

property from which several millions in dividends could be paid in a comparatively short time. There is every reason to believe that the ore necessary to produce this amount of money exists in this territory, and one good shaft properly equipped with the necessary machinery, would prove sufficient to work the entire area. The economy resulting from a centralisation of work would be over 200 per cent. of what could be attained otherwise. At present there are four shafts, varying in depth from 450 to 700 ft., and each provided with fair machinery, yet none of them will be able to take care of themselves. The consequence is that all of them are closed down nine-tenths of the time, and only a minimum amount of ore is produced at an exorbitant cost, and no development or exploration work accomplished. It is for this reason that we hope to see the movement on foot succeed, and trust the effort Mr. Finn is now making will be successfully accomplished, feeling certain that it will redound to the benefit of the district, and the advantage of everyone now interested in these properties.

CORNISH STAMPING MACHINERY.

The sound practical information elicited at the recent meeting of the Mining Institute of Cornwall by the reading of Mr. W. Husband's paper on Stamping Machinery, and the discussion which arose will be of interest to miners generally. Mr. Husband remarked that rock stamping was a question of great importance when we considered the quantity crushed throughout the world. In Cornwall alone he estimated that more than 600,000 tons of tinstone were stamped in one year. Stamping machinery might conveniently be divided into three heads. First, the gravitation stamps, the stamp raised by a cam or other means, and in falling pulverisers by the force of gravity only. Second, the direct-acting stamps, where the steam cylinder is fixed over the mortar or coffer, the head being raised by admitting the steam under the piston for lifting the head, and subsequently over the piston, the resulting blow being both the effect of gravity and the expansive forces of the steam. And, third, where the head is lifted and forced down by a crank motion, the crank and lifter being made by an elastic link, such as steel springs or air cushions, so as to allow a play up and down in the coffer, and to secure a free and swinging blow. The first description was too well known in Cornwall to require much description; but, considering that three axles were frequently driven direct from the engine in one line, and that the line of shafting in such cases would be from 60 to 70 ft. in length, great care should be taken in fixing, for any deviation from the true line would cause undue strain on the machinery and loss of power. He suggested cast-iron instead of wood horses for carrying the axle blocks, and considered the larger grates introduced of late years advantageous, it being very important that the crushed ore be discharged as soon as it is reduced to the regulated size to pass through the grates, otherwise the tin ore is by repeated stamping reduced to slime, and there is great expense afterwards incurred in securing it; indeed, with the ordinary method of stamping, and with the best arrangements of grates, slimes in undue quantities must be produced, and this is mainly owing to the slow action of heads in lifting and falling.

Prominent attention was drawn to the great importance of effecting a separation of tinstone in such a manner that the high quality stuff be stamped alone instead of allowing all the stuff, as is done in some mines, varying from 10 lbs. of tin in the ton to, perhaps, 60 to 100 lbs.; to be stamped together, for in the latter case there will be much more slimes, and consequent loss of tin; moreover, in many instances good quality ore might be stamped to pass through a rougher holed grate by adopting wrought-iron coffers. The stamps generally employed out of Cornwall are the Californian and Australian stamps, and in their use, as compared with the Cornish system of stamping, there appears to be an economy of power, one horse-power doing more work with the revolving stamps than with the old system. There would also be less wear and tear of machinery, and considering that two heads would do as much work as five heads with the old stamps much less space would be occupied, and there would be less liability of settlement of line. There is also an advantage in using shoes for the heads, for with shoes the effective weight of heads in stamping are maintained nearer the maximum. Another important advantage possessed by the revolving stamps over the old system is the motion of the cam in lifting the head. With the Cornish system the cam strikes the tongue with a blow due to a velocity of about 2 ft. per second. With the revolving stamp the blow is hardly perceptible. It should also be observed that the lifting power is applied more in a line with the axis of the lifter Mr. Husband thinks that heads lifted by cams might be constructed with advantage of much greater weight, and lift (say) up to 1 ton or more in head and lifter, and about 18 or 20 lift. For heavy heads the lifter might be formed with an oblong hole at the top end, and fitted with a roller. The cam could be rotated in this aperture under the roller, and so lift the head with the minimum of friction. Another advantage of this arrangement is that the weight would be lifted at a point central with the lifter drawing. The number of blows per minute might be increased with gravitation stamps by allowing the head of the lifter to rise against an elastic stop, either of an air cushion or other spring, for by such an arrangement the velocity of a downward stroke might be increased indefinitely.

In direct acting stamping the steam cylinder is inverted over the coffer, and the stamp head is attached to a piston rod. This is a plan which naturally suggests itself to a mechanic when considering the best means of applying steam-power for stamping. The arrangement is simple, and there being no intermediate belting and gearing there would, of course, be no loss of power on that account. A great many experiments have been tried with various arrangements of this general plan, and those we have seen in this county have been unsuccessful, mainly owing, in the writer's opinion, to the fact that the steam cylinders have been fixed too low, the stamp lifter being too short, so that there was not sufficient room for manipulating, &c. In other countries, however, and especially in the copper mines of Canada, direct steam stamping is employed, and has been for many years past. A direct acting stamps, named after the inventor, Ball, appears to be the most favoured, because with Ball's stamps 4 tons of ore may be stamped with a waste of 1 lb. of cast-iron in the shoe and die. As compared with the ordinary stamps, the main and, perhaps, the only objection, is the power required to stamp a ton of ore. The cost of working on that account is much higher, and that must necessarily be so with all stamps of similar construction when the engine for driving is non-condensing and works the steam with but very little expansion. Probably the quantity of fuel required would be from two to three times as much per horse power as that consumed for a good stamping-engine, such as is employed in Cornwall. Out of a vast number of stamps made under Mr. Husband's inspection no Cornish stamps have been sent to a foreign country. It may be stated in favour of the Cornish system of stamping where the axles make round for round with the engine, that the stamping-engine may under such circumstances be constructed on the best principles, both as regards durability and economy of fuel, because the engine can be built for a long stroke, and that, combined with a proper amount of expansion, will secure good duty, and the engine will require but little repair. A well built stamping-engine, as employed in Cornwall, with heavy fly-wheels, and running at a fair rate of expansion cannot easily be surpassed by other types of engine used elsewhere. His experience was that stamp-heads will (other things being equal) pulverise stone in quantities proportioned to weight of heads, within certain limits. Now it is obvious that concentrating the power into fewer stamp-heads would simplify stamping machinery. The number of moving parts would be greatly reduced, and the cost of maintenance and oversight lessened. The space required by the present Cornish system would, by the adoption of larger heads, be proportionately lessened, and the first cost of the machinery and foundations be considerably diminished. With the adoption of heavier heads there would be the further advantage that the method of stamping with shoes to the heads might be more easily adopted, and the writer need not enlarge on the advantages attending their use. In conclusion, he advised the adoption of cast-steel for the wearing parts of stamping machinery whenever it is required to send such machinery into foreign countries, where transport is expensive. In this country the cost of cast-steel is as yet probably too high to compete successfully with cast-iron for stamp-heads.

The lively discussion which followed the reading of the paper was certainly not less important than the paper itself. The Chairman (Mr. R. H. Williams, C.E.) remarked that the old Cornish stamp appeared to be just the same as it was half a century ago, with a few modifications. We had arrived at a better class of engine, and also at, perhaps, better material in the construction itself. It had occurred to him (Mr. Williams), and to many others, no doubt, the very large expense that was necessary to put up a stamping engine—the enormous building, the tall engine, and the immense range of frames and lifters; the expense being so large that he supposed 100 head of stamps with the floors, occupying so much room as the machine did, had cost from 6000*l.* to 7000*l.* at least. He had thought for some considerable time that the stonebreaker was certainly a very excellent thing. He believed that we were stamping at least one-third more heads than we did without the stonebreaker, and he thought when the stuff had gone from the stonebreaker it should go through the old Cornish rollers. With reference to the practice of turning right-about heads that had become worn, the pulverising effect of the head so turned was very seriously diminished; nothing was pulverised except what came immediately under the tread of the heel. He certainly thought we ought in this age to put up a machine in our mines to deal with (say) 50 or 100 tons a day at a very considerable less cost than we were now doing. Being asked whether the stamps, models of which were exhibited on the walls, and to which he had referred in his paper, could be worked by steam direct, without the intervention of compressed air, Mr. Husband said they could not; wherever you had a crank motion you were bound to have an elastic motion of air or springs. The President further observed that he remembered being in one of the largest stamp-floors in the world, and there they had several hundreds of heads in one room, working with belts. The great advantage of that, he saw, was that the shafting was very light.

Mr. W. Teague, referring to the wearing away of the materials of the head and the falling in this manner of the iron of which it was composed into the material which was being dealt with, remarked that if the iron of the head fell into the material and was sold as black tin, they had very little reason to complain. Mr. Teague questioned whether there would be any advantage in introducing steel for lifters and shoes.—Mr. Husband replied that, as a matter of fact, he did not recommend them for this country, but only when the articles were sent to foreign countries, because, from his experience, a good steel head would last out two or three cast-iron heads. —Mr. Teague went on to say that steel would break as well as iron, and would there not be a difficulty in repairing it?—Mr. Husband admitted there might be; he did not think the ordinary smiths could repair steel fractures.—Mr. Teague then referred to the desirability of having a more even surface for the head to strike on. The question was whether they could introduce anything that would pulverise their stuff cheaper than the old Cornish stamps. They might do so, but he had yet to learn that it was possible to be done satisfactorily. The old Cornish stamp, taking the uneveness of the stuff, was the best pulveriser they could get. In replying upon the whole discussion, Mr. Husband said that he had been paying attention to stamping for many years past. He had heard the remark made by many that our system of stamping was an antiquated system compared with that used in India, Australia, and other countries, and he thought it would be beneficial to bring together a few of the systems that had been adopted in various places. He thought that after a little consideration we should see in this county larger stamps employed.

THE MINERAL RESOURCES OF IRELAND—No. I.

BY THOMAS TONKIN, M.E.

Few of the many tourists and pleasure-seekers who visit Wicklow, Killarney, and other popular and picturesque resorts imagine as they journey thither that the fertile valleys, the steep declivities, the mountain torrents, and the heathery moors conceal vast and varied stores of mineral wealth—gold, silver, copper, lead, iron, manganese, barytes, coal, and a variety of other mineral substances abound in Ireland. Every county and almost every parish contribute more or less to the undeveloped, though undoubted, mineral wealth of this much-neglected country. Nature has adorned her with many beauties, and imparted to the climate, soil, and position of the island commercial advantages possessed by few other nations. Yet, notwithstanding the rapid and gigantic strides which modern science is making in the development of the resources of distant and less favoured countries, Ireland, as it were, stands alone, disregarded by the man of science, the capitalist, and the speculating public generally. This, however, cannot last. Within easy distance of London, the mineral veins, beds, and deposits which often crop out to surface will ultimately attract attention, not only in this country, but among the enterprising inhabitants of the country itself; and to promote this desirable end I propose giving an outline of the results of my own professional observations, extending over some years, and embracing a large section of the country.

It may be inferred from this that nothing has been done in the way of developing the resources of Ireland; but it is proper to add that explorations on a limited scale have been carried on over a considerable area, and with results, under the circumstances, of a very encouraging and interesting nature. Capitalists, however, have been exceedingly niggardly in supplying the needful to follow up to a successful issue the discoveries made, and it has been only in few instances that extensive and commercially profitable mining operations have been carried on.

The clay-slate formation of West Cork is very prolific in indications of copper ore—ruby, purple, grey, and yellow copper ores have been discovered in many places, also iron, manganese, barytes, and silver-lead ores, and veins containing these minerals are discernible at surface and in the cliffs of the sea-coast from Dersy Head on the north to Brow Head on the south, which veins in their course run inland, and may be traced eastward to the confines of Bantry, Drimoleague, and Clonakilty. These veins are chiefly composed of quartz, iron oxide, iron pyrites, sulphate of baryta, and sometimes carbonate of iron. They vary from 1 to 60 ft. wide; the containing rock is metamorphic, being composed of clay-slate intersected in places by elvan dykes. The face of the country is bold and craggy, giving evidence of great local disturbances, occasioned by the intrusion of igneous rocks, which facts are also borne out by the numerous flexures and contortions of the strata along the coast.

A striking instance of the richness of the Irish mines when conducted with energy and skill and judicious selections are made is presented at Berehaven Mines, near Ballydonigan Bay, on the west side of the promontory of Bere. This mine commenced 70 years ago, since which time the operatives engaged have enjoyed almost uninterrupted prosperity. At one time 1000 persons were employed in and about the mines, and large profits have been derived from the copper ore obtained there, and sold at Swansea. The veins of this mineral property are contained in a space of three or four miles, and run east and west, and dip towards the north. The matrix of these lodes is quartz, varying from 2 to 60 ft. in width. Several of a kindred nature were discovered, but two were found to be particularly productive, and for a number of years yielded an average of 7000 tons of copper pyrites per annum, then valued at 9*l.* per ton of ore. The composition of this ore is a double sulphide of copper and iron. Mr. Puxley, the former proprietor, handed the mines over to a company a few years ago, since which time the profits, if any, have been very small.

The veins of copper ore which have proved so productive at the Berehaven Mines extend east to and beyond the town of Castletown, Berehaven, and at a place called Waterfall quartz veins containing copper ore have been discovered, but no mining explorations to speak of were carried on, though the indications there are very good. At two places in Bere Island, in Bantry Bay, quartz veins and spots of copper ore are visible; also on the south shore of the island may be seen a good flag quarry. The facilities for shipping are all that can be desired, Bantry Bay being famed as a large and commodious harbour, and the frequented resort of the great ironclads of the British Navy, and history tells us an attempted occupation of Ireland by the French was made at this place. On the south shore of the bay three copper ore mines were opened 30 years ago, called Gurtwallag, Killeen, and Glenaulin Mines; all three produced copper ore of superior quality, but money was not obtainable for testing the nature of the lodes below the level of the sea, and hence the mines were abandoned, after extracting all the ore of value to be found near the surface, a fate which indeed has unfortunately attended most of the mines of this and other districts of Ireland. Quartz, chlorite, and copper pyrites are the chief component parts of the veins, and with little exception they have an east and west course. Sheep's Head, the extremity of the peninsula, parish of Kilcrohane, five miles west of the Gurtwallag Mine, sports a signal tower, constructed for protective purposes in troublesome times. Ten miles further east, near the town of Bantry, a lead ore vein was tried at a place called Kilovinogue, but only superficial excavations were made, and near the same place a lode of copper ore was superficially operated on, and valuable samples of copper obtained, and it is needless to add no persistent means having been taken for thorough explorations these, like nearly all the so-called mines of the district, were abandoned after a few years' working in a half-hearted manner.

Bantry Bay and its surroundings present a picture of considerable beauty. The azure ripples of the water of the bay, the beautiful vale and harbour of Glengariff, and the majestic grandeur of Hungry Hill, which towers above the sea 2500 ft., is a panoramic treat not soon to be forgotten.

METALS: THEIR PROPERTIES AND TREATMENT.

LONGMANS' TEXT-BOOKS OF SCIENCE.

The progress of discovery and invention in connection with metallurgy is perhaps more rapid than in any other branch of industry, so that the constant revision of the text-books becomes an absolute necessity. The admirable arrangement of Prof. Bloxam's work on the metals ensured it a good reception as a scientific text-book for a long period, but the succession of discovery after discovery had rendered it somewhat antiquated, an objection which has now been removed by the issue of a new edition thoroughly revised and brought up to date by Prof. Huntington—Metals: their Properties and Treatment. By C. L. Bloxam. New Edition, partially re-written and augmented by Alfred K. Huntington, Professor of Metallurgy in King's College. London: Longmans, Green, and Co.—who has certainly rendered the work vastly superior to its predecessor and highly instructive. The important changes in the metallurgy of iron necessitated the entire re-writing of that portion of the subject, and Prof. Huntington may be congratulated upon having treated iron and steel as one metal and given a much better idea of the guiding principles of the industry than is usually met with in works of much greater pretensions. Chapters on fuel and refractory materials have also been introduced, and reference is made to some of the latest developments of the nickel and cobalt manufacture.

In the chapter on fuel the whole subject is considered scientifically and commercially, so that the student will become acquainted with the conditions influencing calorific intensity and the methods of valuing fuel, and likewise with the methods of dealing with wood, charcoal, peat, lignite and coal, coke, and gaseous fuel, with a view to their employment for metallurgical purposes, and at the same time will get a fair idea of the principles of the various furnaces and stoves by the aid of which the metals are extracted. In treating of refractory materials he gives numerous details about fire-clays, crucibles, silicious bricks, ganister, brasque, and plumbago crucibles, bauxite, lime, dolomite, and the basic lining of Bessemer converters. The section on iron and steel is particularly interesting, and his observations with reference to the metal produced by the Bessemer and open-hearth processes are sound and useful. It has become customary, he remarks, in this country to designate by the term steel all metal produced by these processes. It thus has resulted that we speak of steel ships, steel boilers, and steel rails. The metal of which ship and boiler plates are made contains about 0·13 to 0·24 per cent. of carbon, while rails have usually about 0·4. The first could not be appreciably hardened, and the second is considerably below what would formerly have been considered steel. Although the metal possessing the true characteristics of steel can be made by these processes, yet that which is ordinarily made is not steel, but a metal called into existence by our recently acquired power of obtaining an extremely high temperature. This new metal, as it may fairly be called, has properties far excelling those of wrought-iron, and it has only been a question of time to make this universally felt. At the present moment new iron rails are things of the past, and wooden sleepers have begun to follow in their wake, it having become apparent to all that our new metal will be an economical substitute. So with ships—the wooden walls of England are no more. The so-called steel is not only supplanting wrought-iron where it was used, but wood also. There is now but one sound reason why steel should not universally replace iron with advantage, and that is that in some cases it is cheaper to employ iron. Statistics show that the enormous quantities of steel now manufactured have but little, if at all, affected production of wrought-iron. It is, however, but a question of time when the day will come, and every day brings us nearer to it, when steel will be manufactured as cheaply as iron. Then will wrought-iron be a thing of the past among civilised nations.

Passing over the chapters on copper tin, and zinc, which are not very materially altered, as compared with the previous edition, there is a very useful chapter on nickel and cobalt. These two metals almost invariably occur in the same ore; but the New Caledonia ore —a pale green hydrated silicate of nickel and magnesia, free from arsenic and sulphur, and containing about 7 to 15 per cent. of nickel —is practically free from cobalt. It is stated that now, for the most part, it is smelted in blast furnaces on the spot, much in the same way as iron is treated, and the metal exported to this and other countries, in the form of pigs containing about 5 per cent. of carbon and silicon, and occasionally a little antimony. The difference in cost for carriage between the ore and the pig amounts to about 20 per cent. Hitherto nickel has only been used in alloy with other metals, as a whitening agent. The reason of this was that it could not be obtained in a workable form. The metal resulting from the fusion of grain nickel is always wanting in malleability and ductility, behaving in a similar way to wrought-iron which has undergone fusion; and, probably, for a similar reason. Dr. Fleitmann, in 1879, succeeded in rendering nickel malleable, by adding to it, whilst in a state of fusion, ½ per cent. of magnesium, introduced through a hole in the top of the crucible, a few lumps of charcoal having been previously added. In this way it is possible to produce malleable nickel, which can be welded to iron or steel at a white heat, and rolled into thin sheets without separation.

Mr. A. S. Johnstone, of Messrs. Wiggin and Co., of Birmingham, subsequently succeeded in rendering both nickel and cobalt malleable with manganese. For most purposes the addition of 2 per cent. of metallic manganese is sufficient; but when the maximum degree of malleability and ductility is required the quantity added may be increased to as much as 5 per cent., beyond which there is no gain under ordinary circumstances. It is not likely, adds Prof. Huntington, that important applications will be long wanting for a metal possessing such valuable properties as malleable nickel, the price (about 4s. per lb.) being comparatively low. Malleable nickel anodes are already being substituted for the old cast anodes. The former certainly have a great advantage in their uniformity of structure, which not only prevents them being eaten away irregularly, but also avoids loss of energy through secondary currents. Whether the presence of manganese will prove an objection remains to be seen. In any case, with proper care in the manufacture, it could, in all probability, be reduced to so small an amount as to be innocuous. This conclusion, as to the possibility of controlling the manganese, is based upon the knowledge of the parallel case of Siemen's steel.

There are chapters on lead, silver, gold, mercury, platinum, palladium, antimony, bismuth, aluminium (for which Bloxam's orthography, "aluminum," is often accidentally retained, although as unreasonable as to use "sodum" for sodium), magnesium, and cadmium; together with some useful tables relating to properties of metals, alloys, and building materials; questions for examination, and an excellent index. The extent to which Prof. Huntington has

added to the original volume will be best indicated by mentioning that, whilst the edition of 1870 consisted of 304 pages, the present occupies 452 pages. In its present form the work may be adopted with confidence as a text-book, since the student will acquire much valuable knowledge, and nothing which he will have afterwards to unlearn.

ELECTRIC ILLUMINATION ON THE LARGE SCALE.

In connection with electric illumination the present week will long be remarkable as having witnessed the production from a single machine of sufficient electricity to illuminate a fair-sized town, inasmuch as the Gordon dynamo has been shown in operation at the works of the Telegraph Construction and Maintenance Company at East Greenwich. The inventor, Mr. J. E. H. Gordon, claims to have constructed the most powerful generator of electricity known as yet, and when it is stated that the machine exhibited, when running at full speed, will maintain from 5000 to 6000 20-candle lights, it is tolerably evident that his claim must be allowed. This does not, it is true, rival the promises of some other projected machines; but then this has the advantage of being actually at work, while the others are as yet only on paper. Of all machines actually set going this is, undoubtedly, the most powerful, and there is manifestly nothing in its construction which forbids its being set up on a scale commensurate with an ordinary gasworks.

This time last year Mr. Gordon maintained that the various items of expense connected with the generation of electricity on a small scale must always put electricity at a disadvantage as compared with gas; but that as soon as means were found of distributing it over a large area from a common centre that disadvantage would disappear. The distribution in the trial in question was over the works of the Telegraph Construction and Maintenance Company, which all who have seen will allow may fairly be taken to represent a large village or small town. There are streets of offices, and workshops, and private houses, spreading over some 14 acres of ground, and extending in one direction considerably more than a quarter of a mile, and the greater part of it was last night illuminated by about 1300 Swan lamps. This was hardly a quarter of what the machine is capable of doing, so that if no further advance were practicable, the Gordon dynamo must be held to have carried the practicability of lighting a town a very important step forward; and it is said that there is no reason why this same machine should not be made on any larger scale that may be determined on, so as to save all the many items of expense incidental to many centres.

The arrangements were at once compact and simple. The two principal features of the room were the dynamo itself and the engine by which it was driven, and with which it was directly coupled without the intervention of belts. The man in charge of the engine was in a small adjoining room, where at a glance at the "indicators" before him he could see what steam pressure he had, what speed he was running at, what electric pressure he had, and also, by a very simple photometrical arrangement, he could judge of the brilliancy of the lamps all over the premises. All the lights, it should be observed, are independent of each other, and may be turned out like gas, and in the event of such a number of them being extinguished as would affect the brilliancy of those left alight, his photometer would immediately show it, and a wheel under his hand enables him to shut off a little steam from the engine in the next room.

The machine itself is less ponderous than most other machines of considerably smaller power, and whereas in most, if not all others, the magnets are fixed and the armature revolves, in the Gordon machine the coils are fixed while the magnets revolve on a wheel of no less than 8 ft. 9 in. in diameter. This large circumference affords the necessary velocity to the magnets—of which there are 128, with half that number of coils—without a very great speed of running, 1300 Swan lights being kept going by about 140 revolutions per minute. The plan of revolving magnets and fixed coils, the inventor claims, has two advantages. In the first place it permits of the revolving wheel being made of wrought-iron boiler-plates, and thus made strong enough to transmit any quantity of horse-power the machine is capable of absorbing. And, secondly, it dispenses with the necessity of rubbing contacts, except in the small subsidiary machines which excite the magnets. From the armature to the light there is a continuous connection throughout, and the huge machine runs absolutely without the slightest sparking or any other indication that it is actually at work. This is a very important point, because in many machines the heating and sparking is a source of a good deal of trouble, and this in a dynamo producing five or six thousand lights would render it scarcely practicable to take the current through a rubbing contact spring. The difficulty would increase with the strength of the current generated, but it is absolutely overcome altogether in this machine.

The success of his present experiments has emboldened him to propose the construction of a dynamo with an 18 ft. wheel, and he claims that the expense of attendance and so forth would be no greater; it would involve really nothing more than was seen last night, except greater engine power, while from this 18 ft. machine it is computed that 200,000 lamps such as were shown at Greenwich last night might be steadily maintained. Such an installation would put the new light on something like an equality with gas, and permit of its being supplied on, at any rate, the same terms. As to the efficiency of the machine, it is said to reproduce 94 per cent. of the engine strength when 134 indicated horse-power is being supplied.

ASSAM RAILWAY.—Interesting details relative to the progress making with the railway have been given by a gentleman connected with the Assam Railway and Trading Company recently returned from Assam. The engineers, Messrs. Robert Piercy and Paganini, did not arrive in Assam until the end of November, 1881, and as some time was occupied in making surveys and obtaining the necessary land it was not until the commencement of the present year that operations could be commenced. Some difficulty was then experienced with regard to the obtaining of labour, as it was too late, owing to the season, to procure coolies from the Calcutta or Bengal districts. For the first month, therefore, there were never more than 300 persons engaged; but, owing to the energy of the European overseers and the attractions of daily pay before the end of February, between 3000 and 4000 persons were engaged, chiefly Bengalees and Hindostanees with a few Assamees. The works then proceeded rapidly; but some difficulty arose from the want of skilled labour, especially platelayers, under the best of circumstances only a limited class in India, as these were all engaged on the numerous extensions and lines in progress there; the engineers, therefore, found that they had no alternative but to teach some of their labourers the art of platelaying, and, fortunately, they turned out tolerably apt pupils. The severe and heavy rain in March and April retarded the works to some extent, but the fine weather of the following months enabled them to make such progress that on Aug. 1 the Government of Assam inspected the line and declared it open for goods traffic for 17 miles from the Berampootah to Dingan. From August the operations of laying the line had to be suspended owing to the rainy season, but some important work was carried on in bridging the Dingan and Dihing rivers. Recent advices state that the laying of the line has been recommenced, and is making rapid progress towards Chubwa, over 2000 labourers having lately been dispatched from Bengal to the works with upwards of 100 skilled mechanics, platelayers, and colliers from England and Italy. In addition to the work executed last year at the Berampootah end of the line, about eight miles were cleared from the Dihing towards the coal fields, whilst the work also proceeded uninterruptedly at the Makum end; and large quantities of sleepers having been cut, and materials, including rails, being now on the spot for about 40 miles of railway, the engineers feel sanguine that they will be enabled to lay down the line at the rate of nearly a mile a day, so that unless something unforseen should happen the entire system may be completed and in working order before the middle of April next. In addition to the railway operations already carried out, a large number of buildings have been erected, including workshops, locomotive sheds, bungalows, and barracks for the officers and European workmen, whilst stations have been erected at Dibrugarh, Lahowal, and Dingan. One of the chief objects of the company is the development of the mineral resources of the province, they having obtained concessions of nearly the entire Makum coal fields, believed to be for extent the richest in the world, and of the petroleum deposits in the Jaipur sub-division. The company have already received enquiries for 600 tons daily, and it is believed that the coal is of such quality that it will displace all other Indian coal in the market. The company has also a steam flotilla, which is growing rapidly, there being three steamers regularly running between Dibragarh and Calcutta, and three recently purchased from the Indus flotilla are now on their way from Bombay, and will be plying on the Berampootah before Christmas. One feature in the railway is, that a little below the station of Dibragark the line bifurcates, one branch leading to the steamer Ghaut in the dry season, and the other in the rainy season, so that whatever may be the state of the Berampootah, the trains will always run alongside the steamer wharf. The completion of the line must have an important influence on the future of the tea industry; already about one-eighth of the Indian tea now selling in Mincing-lane having passed over the railway, and most of the principal tea factories have arranged to have sidings laid down into their tea-houses. Mr. Benjamin Piercy, consulting-engineer, will proceed to Assam by the first mail steamer in December, and one of the directors, not improbably Mr. J. S. Forbes, the chairman, will visit the property at an early date. It need only be added, that up to the present time the health of the whole of the employees, both native and European, has been unusually good.

TANKERVILLE GREAT CONSOLS.

Although the amalgamation of the Bog and Pennerley Mines with the Tankerville did not result in bringing the concern into profits so rapidly as was anticipated, it is now confidently believed that the heavy and unprofitable work has at last been completed, and that henceforth all will be plain sailing towards the much-desired dividend state. The new capital now to be issued will place the company in a strong financial position; and, as a very promising discovery has just been made, the shareholders are naturally confident that all their difficulties are past. The remarks of the Chairman—Mr. Peter Watson—in moving the necessary resolution for authorising the increased capital were very reassuring; he said that although he hoped and believed that they would not require the whole 27,500*l.* for a long time, at the same time they would require half of it to pay off the amount stated in the balance-sheet, and to provide capital for additional machinery, as will be shown in Capt. Waters's excellent report which would be read. Certain machinery is required, which will come out of capital account as well as the sinking of three or four shafts. The Pennerley shaft has not been sunk for many years, nevertheless a large amount of ore has been raised there. He did not fear the result of further expenditure. After Capt. Waters's report had been read he would make one or two further observations, but he might here call attention to the ore from the Potter's Pit, part of the mines of Pennerley, and point out the extraordinary remark which Capt. Waters made on the mine only, comparatively speaking, a few days ago with respect to Potter's Pit—that its junction with Pennerley would give them one of the biggest mines in the country.

The present prospects of the concern will be best ascertained from the full report of Wednesday's meeting, published in another column, especially from that portion where the Chairman says: With repect to this mine, we have had a very wonderful discovery since we were at the mine, and Capt. Waters assures me that there is a very brilliant future before us with respect to Potter's Pit. We shall be able to at once, I hope, when we get the new machinery at work (which the directors will take into consideration to-day), and when we get the compressor and belting we shall get it to work in a very short time, and we shall be able to pay our way at Pennerley almost immediately. With respect to Tankerville our improved prospects there are such as you heard from Capt. Waters and Capt. Smithers, and I think we can see our way pretty well to pay our way there also

We have got, as Capt. Waters says, for the third and last time, to the bottom of Bog, and I hope we shall have no more breakages; and, having got to the bottom of Bog, we shall proceed with the sinking of the shaft under the original course of ore, and we shall have valuable reserves there—much more valuable than the capital which we are asking the shareholders to put their hands into their pockets to find. There will be a very large amount of ore ground standing there. What we want capital for is to sink three or four shafts, and we want some machinery at surface; and when we meet the shareholders twelve months hence on the mine, I think no shareholder will regret having taken his proportion of preference shares. (Hear, hear.) And, moreover, we hope that he will not only be paid his interest for the year on the preference shares, but that also they will get something in addition on the ordinary shares, because 10 per cent. on 27,500*l.* is only 2750*l.* I hope when the mine gets into working order we shall easily pay that and something more.

PURIFICATION OF COPPER PRECIPITATE.

For the purification of copper precipitate made by the wet process of copper extraction, and also the purification of copper ores containing arsenites, arseniates, phosphates, tin, or its compounds, or oxychlorides of copper, from the arsenic, phosphorus, tin, and chlorine respectively, a new process has been patented by Mr. DAVID WATSON, of Manchester. To effect this purification he submits the copper precipitate or ore to be treated to the action of caustic alkalies, sulphides or carbonates, separately or either or any of them in conjunction, by leaving it in contact with solutions of these alkaline compounds, and assisting the action by the application of heat if desirable. The result of this is that arsenic, chlorine, phosphorus, and tin that may be present in the precipitate or ore are removed wholly or in part as alkaline compounds.

The precise details of the process of course vary according to the material to be treated. In ordinary cases he prefers caustic soda as the alkaline compound to be used. In dealing with copper precipitate of ordinary quality the precipitate is heated to a temperature approaching 100° Centigrade for three hours or more or less in a vessel of iron or other suitable material with twice its weight or more or less of a solution containing by preference 10 per cent. of ordinary commercial caustic soda. In this operation arsenic, phosphorous, tin, and chlorine or any or all of them pass into solution. The liquor is removed by the ordinary methods, and the washed precipitate treated with water to remove the alkaline liquor still remaining: this wash water is then removed, and the residual washed precipitate dried to prepare it for the ordinary processes of copper smelting. The removal of the above mentioned substances improves the quality of the copper and diminishes the cost of the smelting of the precipitate, and the solution may be employed as a source of commercial arsenic and phosphorous compounds.

A petition for winding-up the Pioneer Mining Company is to be heard on Nov. 3 before Mr. Justice Fry.

ASSURANCE AGAINST ACCIDENTS OF ALL KINDS.
ASSURANCE AGAINST RAILWAY ACCIDENTS ALONE.
ASSURANCE AGAINST FATAL ACCIDENTS AT SEA.
ASSURANCE OF EMPLOYERS' LIABILITY.

RAILWAY PASSENGERS ASSURANCE COMPANY
The oldest and largest Company, insuring against Accidents of all kinds.
The Right Hon. LORD KINNAIRD, Chairman.
SUBSCRIBED CAPITAL £1,000,000
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MODERATE PREMIUMS.
BONUS ALLOWED TO INSURERS AFTER FIVE YEARS
£1,700,000
HAS BEEN PAID AS COMPENSATION
Apply to the Clerks at the Railway Stations, the Local Agents, or
64, CORNHILL,
Or 8, Grand Hotel Buildings, Charing Cross, London.
WILLIAM J. VIAN, Secrtary.

COAL.

WANTED, PERMANENT CONTRACTS with several Collieries for COAL, suitable for making Coke for Iron and Steel Smelting Works,—say, 50 tons a day from each Colliery.
State lowest price f.o.b. at shipping port, length of contract, proposed conditions of payment, and quantity per diem.
Address, "Coal," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

ARGENTIFEROUS COPPER MINE—TO CAPITALISTS.

WANTED, SEVERAL SUMS of £250 to £1000 to COMPLETE a SYNDICATE for the PURCHASE of a most VALUABLE MINE in the Basses Pyrenees, 11 hours only from Bayonne. Estimated annual returns at least 22 per cent. See report of English mining engineer (highest authority on Pyrenean Mines), sent on application. Contract with first Swansea house to take whole produce at liberal prices. Mine easily inspected by investors.
Address, "A. C. M.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

HORNACHOS SILVER-LEAD MINING COMPANY (LIMITED).

WANTED TO PURCHASE, from ONE HUNDRED to ONE HUNDRED AND FIFTY FULLY PAID-UP SHARES in the above company.
Offers, stating number of shares and lowest price, to be addressed to "A. C.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

WANTED, a MANAGER for WORKS in this Country engaged in SMELTING and CHEMICALLY TREATING ORES containing Lead, Copper, Zinc, Silver, &c.
Apply to "Manager," 14, Wigmore-street, Cavendish-square, W.

WANTED, a 60-inch BULL or BEAM CONDENSING PUMPING ENGINE.
Apply, with full particulars and lowest price, to "A.," care of Mr. E. J. Howard, West Bute-street, Cardiff.

WANTED, by a Young Gentleman of considerable experience in various Chemical Manufacturing Industries and Engineering, and with some Capital at command, a PARTNERSHIP, where he could take partial or exclusive Management.
Address, by letter, to "X. Y. Z.," 45, St. Augustine's-road, Camden-square, N.W.

WORKS.—ADMIRABLE SITES—LAND CHEAP—COAL CHEAP—ABUNDANCE OF WATER—SMOKE NO NUISANCE—RAILWAY and DOCK ACCOMMODATION.
Apply, CHARLES COOMBE TENNANT, Esq., 2, Richmond-terrace, Whitehall, London, S.W.

WANTED, COMMISSION HOUSES, ENGINEERS, GENERAL MILL AND COLLIERY FURNISHERS. Exceptionally good terms as wholesale, district, and export agents in unrepresented centres throughout the United Kingdom, Continent, and the Colonies. MORGAN'S CELEBRATED IMPROVED BOILER COMPOSITION, manufactured on approved scientific principles for preventing incrustation and neutralising corrosive acid in feed water.
"An invaluable article at a very low price."
ANALYST'S REPORT (Extract).—"I am convinced it will be useful in preventing and removing incrustation without any injurious action on the metal."
Apply to the Patentee and Manufacturer,
W. H. MORGAN, ENGINEER, GLOUCESTER.

CHEMIST.—ASSISTANT CHEMIST WANTED for a MINE in SPAIN. Chiefly assays for copper.
Address, with full particulars as to age and previous occupation, to "Quimico," care of Messrs. G. Street and Co., 30, Cornhill, E.C.

MINE SUPERINTENDENT.

THE ADVERTISER, aged 34, just returned from India, where he has held the post of Superintendent of four Gold Mining Companies' Works, is OPEN to a RE-ENGAGEMENT. Is well acquainted with the South African Gold Fields; thoroughly understands the Planning, Erection, and Working of Mining and Reduction plant, and is a practical Metallurgist. First-class testimonials and references.
Address, "R. J. A.," MINING JOURNAL Office, 26, Fleet-street, E.C.

REQUIRED, for a Gold Mine in South America, a MINING ENGINEER familiar with the Extraction of Gold.
Apply by letter, with copies of testimonials, to "Calpe," care of Deacon's Advertising Office, Leadenhall-street, London, E.C.

FOR SALE, a VALUABLE TIN MINE, with PUMPING ENGINE, PITWORK, STAMPS, and DRESSING MACHINERY, all in splendid working order. A parcel of tin has been sold.
For particulars, &c., address to "J. R. C.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

NATIONAL EXHIBITION OF MINING, METALLURGIC ARTS, CERAMICS, GLASS, and MINERAL WATERS, to be opened at Madrid on the 1st April, 1883.
Manufacturers and others interested are hereby informed that the General Regulations are on view at the office of the Spanish Consulate General, 21, Billiter-street, E.C. ISIDORO MILLAS.
London, 23rd October, 1882.

THE GREAT POLGOOTH UNITED TIN MINES COMPANY (LIMITED).
Notice is hereby given, that the SIXTH QUARTERLY DIVIDEND at the rate of SEVEN AND A HALF PER CENTUM PER ANNUM will be PAYABLE on and after the 13th November, 1882.
The Transfer Books of the company will be closed from the 1st to the 13th November inclusive.
By order of the Board, WILLIAM TREW, Secretary.
48 and 49, Palmerston Buildings, Old Broad Street, E.C.,
27th October, 1882.

MINE "EL CALLAO."
GUAYANA, VENEZUELA.
COUPONS OF SHARES 322
Gold in bars produced during the month of September, 1882, and remitted to Messrs. Baring Brothers and Co., London, 9406 19·100 ounces.
DIVIDEND distributed for each coupon, $400.
(Signed) A. LICCIONI, President.
(Signed) VICTOR T. GRILLET, Treasurer.

NEW TERRAS TIN MINING COMPANY (LIMITED).
Those who are desirous of INVESTING HEREIN should apply at once to the Associated Mineowners' Corporation, Grampound-road, Cornwall.

THE ALMADA AND TIRITO CONSOLIDATED SILVER MINING COMPANY (LIMITED).
Notice is hereby given, that the TWENTY-FIFTH HALF-YEARLY GENERAL MEETING of the above company will be HELD at 47, Finsbury Circus, London, E.C., on FRIDAY, the 10th day of November, 1882, at Twelve o'clock precisely, for the purpose of receiving reports from the directors and manager, and transacting the ordinary business of the company. The register of transfers will be closed from the 27th October, to the 10th November, both inclusive. By order of the Board,
J. A. MORGAN, Secretary.
47, Finsbury Circus, E.C., 27th October, 1882.

Now Ready,
TABLE OF THE ORDER OF SUPERPOSITION OF BRITISH ROCKS, showing the SYSTEMS, FORMATIONS, GROUPS of STRATA, CHARACTERISTIC ROCKS, PREVALENT MINERALS, and TYPICAL FOSSILS.
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MR. P S. HAMILTON (late Chief Commissioner of Mines for the Province of Nova Scotia), PRACTICAL GEOLOGIST, MINING AGENT, and MINING ENGINEER, HALIFAX, NOVA SCOTIA.
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CAPT. WM. BUGELHOLE (late of Cornwall, England), begs to inform English Capitalists that he is open to INSPECT and REPORT on any MINING PROPERTIES in the UNITED STATES, MEXICO, or SOUTH AMERICA. Fees moderate. First-class English references.
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COPPER ORES.

Sampled Oct. 6, and sold at the Royal Hotel, Truro, Oct. 19.

Mines.	Tons.	Price.	Mines.	Tons.	Price
Devon Great Consols.	115	£1 16 6	South Caradon	36	£1 12 0
ditto	112	2 4 0	South Devon United	126	1 14 0
ditto	106	2 0 6	ditto	86	1 16 0
ditto	105	1 18 6	ditto	44	3 8 0
ditto	99	2 1 0	ditto	26	3 8 0
ditto	98	2 6 0	ditto	18	7 9 6
ditto	97	2 4 6	Gawton Copper	128	0 12 6
ditto	96	2 3 6	ditto	100	0 16 6
ditto	81	2 0 6	Marke Valley	74	1 4 0
ditto	59	6 15 0	ditto	60	3 9 0
ditto	41	7 15 0	ditto	36	3 3 6
ditto	6	3 1 6	ditto	30	3 14 0
Wheal Crebor	97	2 7 6	Glasgow Caradon	62	5 15 0
ditto	95	3 5 6	ditto	58	4 15 0
ditto	94	3 8 0	ditto	50	6 19 6
ditto	93	5 2 0	Bedford United	71	4 14 6
ditto	88	4 16 6	ditto	41	4 7 6
South Caradon	100	5 7 6	Holmbush	100	2 1 6
ditto	79	4 15 6	Phœnix	36	5 0 0
ditto	75	4 10 6	Hingston Down	24	3 0 6
ditto	72	5 4 6	ditto	10	8 7 0
ditto	58	10 0 6	Mid-Devon	28	6 7 0

TOTAL PRODUCE.

Devon Great Con.	1015	£2624 10 0	Glasgow Caradon.	170	£ 980 15 0
Wheal Crebor	467	1357 0 0	Bedford United	112	514 17 0
South Caradon	420	2269 7 0	Holmbush	100	207 10 0
South Devon Uni.	310	775 11 0	Phœnix	36	180 0 0
Gawton Copper	228	162 10 0	Hingston Down	34	156 2 0
Marke Valley	200	521 2 0	Mid-Devon	28	177 16 0

Average standard ..... £117 13 0 | Average produce 5⅛
Average price per ton £3 7 0
Quantity of ore ..... 3120 | Quantity of fine copper, 161 tons 11 cwts.
Amount of money £10,427 0 0
LAST SALE.—Average standard, £107 9 0 | Average produce 8⅛
Standard of corresponding sale last month, £110 10 0 | Produce, 6½

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	1203	£4038 4 0
Nevill, Druce, and Co.	783	1956 5 0
Williams, Foster, and Co.	1080	3941 5 0
Mason and Elkington	74	441 6 0
Total	3120	£10,427 0 0

Copper ores for sale on Thursday next, at Tabb's Hotel, Redruth.—Mines and parcels.—Mellanear 606—New Cook's Kitchen 155—West Seton 98—Wheal Jewell 97—Tincroft 49—Carn Brea 42—East Uny 38—East Pool 35.—Total, 1120 tons.

NORTHERN LEAD MINING COMPANY
(LIMITED).
IN LIQUIDATION.

VALUABLE MINING PROPERTY AND PLANT FOR SALE.

THE LIQUIDATOR INVITES TENDERS for the PURCHASE of the valuable

MINING PROPERTY, MACHINERY, PLANT, AND OTHER EFFECTS

Of the company, comprising the Brandon Walls, Thorney Brow, and Stotsfield Burn Mines, situate about four miles from the town and railway station of Stanhope, on the North-Eastern Railway, and contiguous to the Boltsburn depôt of the Weardale Mineral Railway.

The property consists of THREE SEPARATE MINES, as above mentioned, containing three distinct groups of lodes, which are between the productive iron mines of the Weardale Iron Company and the celebrated lead mines of Mr. Beaumont, among the most productive of the kingdom. These mines have yielded large quantities of lead and iron; and, in the opinion of the best mining experts who inspected them, only require a moderate expenditure of capital and vigorous development to prove highly remunerative.

The MACHINERY and PLANT include a 38 in. Cornish PUMPING ENGINE, with 10 ton boiler, gearings, connections, &c.

A horizontal 22 horse power WINDING ENGINE, with 6 ton boiler, winding gear, two drums, two cages, and 200 fms. of steel wire rope.

A 44 feet and three other WATER WHEELS, two crushers, one pony.

A 6 horse power PORTABLE ENGINE, steel wire rope, &c., complete dressing floors, with all necessary appliances, iron rails, &c., &c.

60 fathoms of metal pumps, 11 by 3 inch, 36 fathoms of 7 inch metal pumps, numerous buildings, and mining implements and appliances.

Tenders to be addressed, on or before Monday, the 13th day of November, 1882, to WILLIAM EDWARDS, Esq., Liquidator of the Northern Lead Mining Company (Limited), Waterdale, Wolverhampton.

GLENROY LEAD MINING COMPANY
(LIMITED).
IN LIQUIDATION.

THE LIQUIDATORS are PREPARED to RECEIVE TENDERS, on or before 20th November proximo, for the GLENROY MINE (in the Isle of Man) and the PLANT and MACHINERY thereon.

The Mine was formerly a portion of the celebrated Great Laxey Company's property, and has yielded lead and blende ores of very rich quality.

Further particulars can be obtained from, and tenders addressed to, the Liquidators, at 8, Austin Friars, London.

THE WHEAL FORTUNE MINING COMPANY
(LIMITED).

THE DIRECTORS INVITE TENDERS TO PURCHASE the WHOLE (in One Lot) of the ABOVE COMPANY'S PROPERTIES, situate at Harrowbarrow, in the parish of Calstock, Cornwall, known as the QUEEN MINE, consisting as follows:—

1.—The FREEHOLD LAND, with the Harrowbarrow copper and arsenical mundic lode running the entire length of same, with two shafts sunk on the lode. The land is admirably situated and adapted for the erection of works for the treatment of minerals, and forms an indispensable adjunct to the setts mentioned below.

2.—The OFFICES, ASSAY and DWELLING HOUSES, situate thereon.

3.—The MINING LEASE from the Duchy of Cornwall, dated 9th June, 1869, of an extensive sett extending a mile on the course of the Wheal Brothers and Well (or Langford) silver lodes, and the Harrowbarrow copper, tin, and arsenic lode.

4.—The MINING LEASE from Miss Bennetts, dated 2nd May, 1870, of a valuable sett adjoining the above-mentioned, with the Wheal Brothers and Well lodes running through, and several shafts sunk thereon, the ground being very favourable for silver deposits.

5.—The WHOLE of the PLANT and MACHINERY now used in mining the above properties, including a powerful PUMPING and WINDING ENGINE, 30 inch cylinder, with boiler, &c.

The stopes now laid open on the arsenic, copper, and tin lodes are capable of yielding 200 tons per month, and valuable silver ground is at present opened up at six or seven points on the other lodes.

This well-known property, the prize of the Callington district, is a most desirable one, and affords a rare and excellent opportunity for the investment of capital, being at no part developed to a greater depth than 70 fms. from surface, and so far as worked has yielded ores of more than average richness.

Sealed Tenders, directed to the Chairman, should reach the registered office of the company, 14, Temple-street, Birmingham, not later than Twelve o'clock on Tuesday, the 7th of November next.

The Directors do not bind themselves to accept the highest or any Tender.

By order of the Board,
October 25th, 1882. J. N. DOWLING, Secretary.

HOMER HILL COLLIERY, CRADLEY,
Near STOURBRIDGE.

MR. HENRY KING is instructed by the Mortgagees to OFFER BY AUCTION, at the Midland Hotel, New-street, Birmingham, on Thursday, the 16th day of November, 1882, at Two for Three o'clock in the afternoon, subject to conditions of sale (which can be seen at the offices of the vendors' solicitors, after the 1st November) in One Lot, the above

VALUABLE FREEHOLD COLLIERY

In the South Staffordshire and East Worcestershire Coal Field, comprising 82 A. 2 R. 35 P. of surface, and 90 A. 0 R. 11 P. of MINES or thereabouts, including the celebrated THICK or TEN YARD COAL (nearly one-third of which is ungotten), the BROOCH COAL and BROOCH IRONSTONE, yielding a large tonnage per acre of excellent ironstone, of which about 3 acres have been worked. Also the very VALUABLE and almost inexhaustible BEDS of the famed STOURBRIDGE FIRE-CLAY, which have been proved but little worked except for trial purposes, and immediately adjoining the mines of some of the principal workers of Stourbridge Fire-Clay.

The Thick Coal is capable of a weekly output of from 1500 to 2000 tons. It is now being worked, and is of good quality.

Upon an estate is an excellent house for manager, farm-house, malt-houses, and other buildings, a good dwelling-house, and 12 cottages. The yearly surface rental exclusive of about 13 acres of land in hand is nearly £400. The colliery buildings consist of offices, store-rooms, blacksmiths' and carpenters' shops, large and substantial engine-houses, range of stabling, pitmen's hovels, and other buildings. A self-acting incline delivers the minerals to the railway sidings and Land Sale wharf.

Shafts consist of two drawing shafts 7½ ft. diameter, fitted with pit frames slides, cages, &c.

FIXED MACHINERY AND PLANT.—The principal items consists of one pair of vertical winding-engines, 22-in. cylinders, 4 ft. stroke, air-compressing and other engines for over and underground hauling, and other purposes, weighing machines, ayphon pumps in pit, and tubing connected therewith, Guibal ventilating fan with engine, coal screening apparatus, &c.

The loose stock, horses, and tools, of which an inventory can be seen, will be sold at a price to be named at the sale. There is a clay-mill, with engine, brick-sheds, and kilns.

The Colliery is most advantageously situated in a thickly populated and great manufacturing district, and is connected with the Stourbridge and Birmingham branch of the Great Western Railway at Cradley. The Colliery contains ample siding accomodation.

The fixed plant and machinery are of the best and most modern description, and the workings are now in operation, so that coal-getting can be continued without interruption.

Leave to inspect the colliery can be obtained from Mr. WILLIAM BLOW COLLIS, Mining Engineer, Stourbridge.

Part of the purchase-money may remain on mortgage at £5 per cent.

Particulars and conditions of sale are being prepared, and may be had of Mr. WILLIAM BLOW COLLIS, Mining Engineer; Messrs. BERNARD and KING, Solicitors; or the Auctioneers, all of Stourbridge, and at the Offices of the *Midland Counties Herald*, Birmingham.

TO BE SOLD, at the Castle Hotel, Neath, on the 21st day of November next, at Three P.M.,

THE ABERDULAIS COLLIERY AND BRICKWORKS,

Three miles from NEATH, comprising the BRICKWORKS, and all the COAL, IRONSTONE, and FIRECLAY within certain property near ABERDULAIS, containing 550 acres, in a ring fence.

Unexpired term, 52 years. Dead rent, £733.

Royalties per imperial ton:—

Werngored coal	6d.
Other coal	9d.
Iron ore	9d.
Fireclay	3d.
Wayleave	1d.

Surface, £2 an acre.

Distances from ports in direct communication with property by railway and canal:—From Neath, three miles; from Neath New Floating Dock, four miles; from Swansea, nine miles; from Briton Ferry, six miles.

To inspect deeds and for further particulars apply to WILLIAM GALLOWAY, Esq., Civil and Mining Engineer, Cardiff; Messrs. LINTON and KENSHOLE, Solicitors, Cardiff and Aberdare; or to Mr. JOHN M. LEEDER, Auctioneer, Oxford Chambers, Swansea.

PITWORK REQUIRED, NEW or SECONDHAND, for PROMPT PAYMENT:—

35 fathoms 14 inch PLUNGER LIFT, complete, with 35 fathoms of rods, to suit the pole and strapping plates, caps for top of rods, bolts, &c.

Also BOB, 24 feet beam, 12 feet king post, bishop head, nose plate, centre straps, pedestals, and brasses, complete.

Also 60 fathoms CAPSTAN ROPE (12 inch), a shears 5 fathoms high, legs not less than 14 inches square, with pulleys and pedestals for top, complete.

Also 33 fathoms of IRON RODS for pumping, 2½ inch, square or round, with joints, complete.

To be delivered at Railway Station, Wicklow, Ireland.

Applications to be addressed to "M. P.," care of Messrs. W. H. Smith and Son, Middle Abbey-street, Dublin.

FOR SALE, a 30 H.P. PORTABLE STEAM ENGINE; with link-motion reversing gear, has drum and gearing complete for winding and pumping.

A 14 H.P. PORTABLE WINDING and PUMPING ENGINE.

Also a 6 H.P. PORTABLE HOISTING ENGINE.

Apply to—
BARROWS AND STEWART, ENGINEERS, BANBURY.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACTS, 1862 to 1880, and in the Matter of the CALLINGTON CONSOLS (LIMITED).

Notice is hereby given, that ALL CREDITORS of the ABOVE-NAMED COMPANY are required, on or before the 13th day of November, 1882, to SEND IN their NAMES and ADDRESSES, and the particulars of their SEVERAL DEBTS or CLAIMS on the said company, to the undersigned Liquidators of the said company, at the offices of the undersigned, JOHN BALL BALL, of No. 1, Gresham Buildings, Basinghall-street, in the City of London.

JOHN B. BALL, } Liquidators.
WILLIAM CRIPER, }
SNELL, SON, AND GREENIP, Solicitors to the Liquidators,
1, George-street, Mansion House, London, E.C.
Dated the 26th day of October, 1882.

PRELIMINARY NOTICE.
CLARA CONSOLS MINE,
PONTERWYD, ABERYSTWITH.

AN AUCTION will TAKE PLACE in NOVEMBER, 1882, for DISPOSING of the EXTENSIVE MINING PLANT and MACHINERY, comprising three powerful water-wheels, 60 fms. of pitwork, different sizes, great length of iron rods and connections, drawing and dressing machinery, and other mining equipments.

Particulars to follow in future advertisements and posters in the meantime. Apply to WM. BATTYE, Esq., 16, Great Winchester-street, London, E.C.

FOR SALE, BY PRIVATE CONTRACT, the INTEREST of the MINING COMPANY OF IRELAND (LIMITED) in the

DUHALLOW COLLIERIES.

These collieries are situate near the town of Kantark, in the Barony of Duhallow, and County of Cork, near the Rathcoole siding, on the Killarney Railway.

A powerful steam pumping engine, a suitable winding engine, and two first-class large steam boilers have been erected, and are now standing well housed at the principal pit, in which there are two tiers of pumps, a force and a drawing lift There are substantial offices and slated cottages on the ground.

Further particulars on application to the Manager of the Slievardagh Collieries, Thurles, who will produce the working plans and sections, and explain the company's title therein.

By Order, WILLIAM HAROLD, Secretary.
Offices: 30, Lower Ormond Quay, Dublin, Oct. 26, 1882.

FOR SALE, about 450 tons of CAST IRON PIPES, BENDS, BRANCHES, SLUICE VALVES, &c., lately belonging to the CHELSEA WATER COMPANY, having been used in carrying the Water Supply over the Thames on the Aqueduct at Putney, all in good order, and of a superior quality of cast-iron, comprising as under:—

About 250 SPIGOT and SOCKET PIPES, 24 in. diam., 9 ft. long.
„ 250 „ „ „ 12 in. „ 9 ft. „
A variety of FLANGED PIPES, 36 in. and 24 in. diameter.
4 SLUICE VALVES, 24 in. diameter. with brass facings.
4 „ „ 12 in. „ „
4 „ „ 10 in. „ „
4 „ „ 5 in. „ „
2 AIR VALVES.

For further particulars, apply—Contractor's Office, No. 114, High-street, Fulham, London, S.W.

AURIFEROUS COPPER LODES—QUEENSLAND, AUSTRALIA.

FOR SALE, ONE HUNDRED AND SIXTY ACRES OF FREEHOLD LAND, close to Railway Station, in QUEENSLAND, and traversed by one 4 feet and one 18 inch lode of Copper Sulphide in gold country (see Queensland Government Gazette for 1880—Boolboonda Gold Field, pp. 1214 and 1333).

Crown Grant, Plan, and Report by eminent Scotch Mining Engineer (Dr. Robertson, of Renfrew) can be seen at the Queensland National Bank, 50, Old Broad-street, London, where price and terms can also be learnt; or from N. BARTLEY, Brisbane, Queensland, Agent for Sale of Mining Properties, and holder of the 1879 Sydney International and five other Medals for the best collection (4000) of Australian ores.

There is no royalty or tax on the above land except the local road rates, 32s. per annum.

TO MINING SPECULATORS.

TO BE SOLD, a SQUARE MILE of TERRITORY in MYSORE, EAST INDIES, admirably adapted in every way for Mining Operations. Silver found in large quantities, also gold. Labour plentiful and ridiculously cheap; good roads; railway near at hand. The River Cauvery, which is never dry, within easy distance. Two large water reservoirs on the spot.

Apply for full particulars to Messrs. MAYNARD, HARRIS, and Co. Leadenhall-street, London.

THE

ALLEN STEAM ENGINE GOVERNOR developes the utmost Power, gives Uniformity of Speed under varying loads, and Economises Fuel.

ALSO

PEET'S PATENT VALVE TAP, for Steam, Water, and Gas, from ½ inch upwards. Simple, durable, double seats, full way, and all parts interchangeable.

For particulars, apply to—
WHITLEY PARTNERS, RAILWAY WORKS, HUNSLET ROAD, LEEDS.

SECOND-HAND, BUT EQUAL TO NEW:—
STEAM BOILERS.—Three first-class Boilers, 30 ft. by 7 ft., two flues, Galloway tubes in, and fittings, four years old, insured at 75 lbs. pressure. Will be sold cheap.
BOILERS.—Two Boilers, 28 ft. by 7 ft., two flues. Been working at 65 lbs. Price on rails, £130 each.
Other sizes of Boilers in stock, in excellent condition, 28 ft. by 7 ft., 24 ft. by 7 ft., 24 ft. by 6 ft., 20 ft. by 5 ft., 15 ft. by 5 ft., and 12 ft. by 5 ft. Safe for 65 and 60 lbs. pressure. Very cheap.
PUMPING ENGINES.—Beam and Horizontal. Diameters of cylinders, 100 in., 90 in., 65 in., 60 in., and 38 in. Very cheap.
WINDING ENGINES and COLLIERY PLANT of every description, second-hand, in stock.
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Mines inspected and reported on. Assays and valuations effected.

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Who has had great experience in the Gold Mines of Brasil, California, and Australia, having recently examined the Gold Fields of the TRANSVAAL, is prepared to furnish Reliable Reports as to their value.

All kinds of Mineral Deposits carefully examined and properly estimated.

Apply: LULWORTH HOUSE, GUNNERSBURY.

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(Established upwards of a Quarter of a Century)
ADVISES ON ALL MINING MATTERS.

MAPS OF THE MINES, AND OF UTAH TERRITORY

FROISETH'S NEW AND REVISED MAP FOR 1875,—Size 40 by 56 inches, scale 3 miles to the inch. Handsomely engraved, coloured in counties, showing the Towns, Settlements, Rivers, Lakes, Railroads, Mining Districts, &c., throughout the Territory, and all the Government Surveys to date. Mounted on cloth, £2; half-mounted, £1 12s.; pocket form, £1.

Also, GENERAL MINING MAP OF UTAH, showing twenty-eight of the principal Mining Districts adjacent to Salt Lake City, and location of the most prominent mines. Price, pocket form, 6s.

Also, NEW MAP OF LITTLE AND BIG COTTONWOOD MINING DISTRICTS showing the location of over Four Hundred Mines and Tunnel Sites, together with the Mines Surveyed for United States Patent. Price, sheets, 5s.; pocket form, 3s.

For sale, and supplied by—
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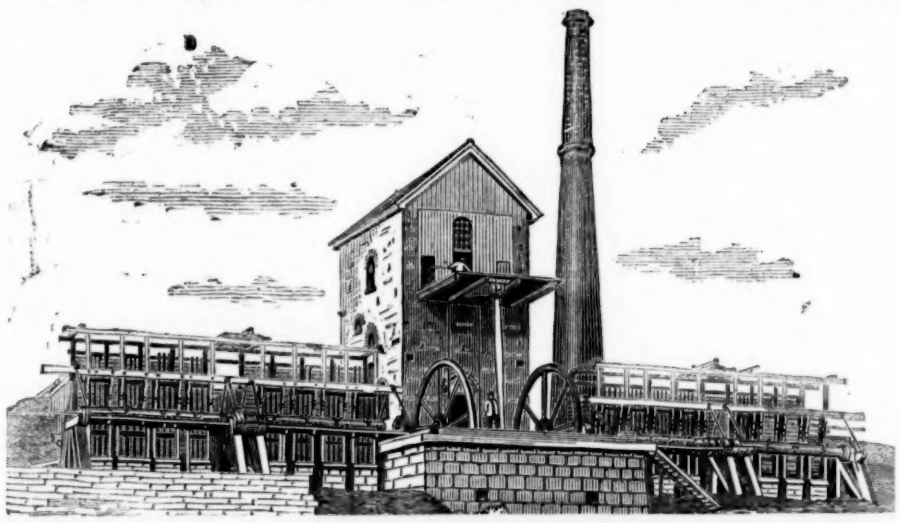

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PUMPING ENGINES; WINDING ENGINES; STAMPING ENGINES STEAM CAPSTANS; ORE CRUSHERS; BOILERS and PITWORK of various sizes and descriptions; and all kinds of MATERIALS required for MINING PURPOSES.

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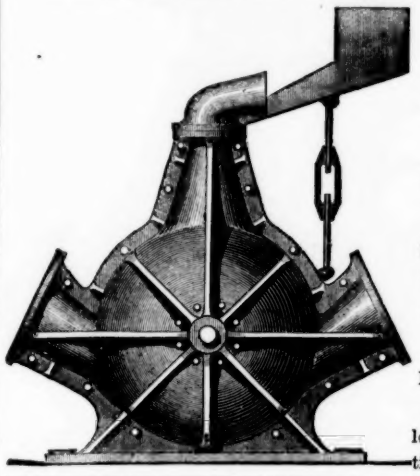

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IRON AND STEEL RAILS, of all sections, from 10 to 86 lbs. per yard, new perfect, new slightly defective, or second-hand, with Fish-plates Bolts and Nuts, Chairs, Spikes, and Points and Crossings to match, when required.

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Shares.		Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
3200	Blue Hills *t, c,* St. Agnes	4 6 6...	1⅜... 1 1¼	... 0 4 0...	0 2 0...	May	1881
6000	Carn Brea, *c, t,* Illogan†	9 7 11...	9½... 9 10	... 52 11 8...	0 10 0...	Nov.	1881
10240	Devon Gt. Consols, *c, a,* Tavistock*†	1 0 0...	7½... 5⅛ 6⅛	...118 7 0...	0 6 0...	Dec.	1880
4296	Dolcoath, *c, t,* Camborne	10 14 10...	77½... 74 76	...133 6 3...	2 0 0...	Oct.	1882
6400	East Pool, *t, c,* Illogan	0 9 9...	52⅜... 50 52½	... 32 16 0...	1 10 0...	Oct.	1882
12500	Frongoch,* *l,* Cardgn (11000 sh.iss.	2 0 0...	2 ... 1½ 2	... 0 4 0...	0 2 0...	Jan.	1881
12000	Great Holway,* *l,* Flintshire	5 0 0...	5½... 5 5½	... 0 5 0...	0 5 0...	Feb.	1882
15000	Great Laxey, *l,* Isle of Man*†	4 0 0...	19 ...17½ 18½	... 28 16 0...	0 6 0...	Oct.	1882
6400	Green Hurth, *l,* Durham*	0 6 0...	8¼... 8 8¼	... 3 11 0...	0 5 0...	Apr.	1882
20000	Grogwinion, *l,* Cardigan*	2 0 0...	2 ... 1 2	... 0 16 4...	0 1 6...	July	1880
10240	Gunnislake (Clitters), *t, c*	2 2 0...	4¼... 4 4¼	... 0 19 9...	0 2 0...	Mar.	1882
2800	Isle of Man, *l,* Isle of Man*	25 0 0...	— ...	... 83 5 0...	1 0 0...	Sept.	1880
6000	Killifreth, *t,* Chacewater	4 3 6...	5½... 5⅜ 5⅝	... 0 8 6...	0 6 0...	Aug.	1882
20000	Leadhills,* *l,* Lanarkshire	5 0 0...	3⅞... 3½ 3¾	... 0 18 0...	0 3 0...	Aug.	1882
400	Lisburne,* *l,* Cardiganshire	15 15 0...	— ...	...613 10 0...	0 10 0...	Sept.	1882
10000	Mellanear, *c,* Hayle*	2 0 0...	5 ... 4 5	... 1 18 6...	0 2 6...	Nov.	1882
9000	Minera Mining Co., *l,* Wrexham*...	5 0 0...	9 ... 8 9	... 69 4 8...	0 1 0...	Aug.	1882
20000	Mining Co. of Ireland, *el., c, l*	7 0 0...	— ...	... 24 0 0...	0 2 6...	Jan.	1880
8000	Mona,* *c,* Anglesea	5 0 0...	5 ... 4½ 5	... 0 10 0...	0 10 0...	July	1880
11829	North Hendre, *l,* Wales	2 10 0...	— ...	... 3 14 0...	0 2 6...	Nov.	1881
8146	Ditto	1 5 0...	— ...	... 0 9 3...	0 1 3...	Nov.	1881
2000	North Levant, *t, c,* St. Just	13 6 0...	4 ... 3 4	... 4 16 0...	0 3 0...	Feb.	1881
4760	Penhalls, *t,* St. Agnes†	4 0 0...	1⅝... 1 1¼	... 3 17 0...	0 1 6...	Jan.	1881
6000	Pennant, *l, bar,* North Wales*	5 0 0...	5 ... 4½ 5	... 0 10 0...	0 0 5	Mar.	1876
12090	Phœnix United, *t, c,* Linkinhorne	6 0 3...	3½... 3 3¼	... 17 4 0...	0 2 0...	Aug.	1882
18000	Pr. Patrick,* *s-l,* (als.12000pf.10 p.c)	1 0 0...	— ...	... 0 18 6...	0 2 0...	July	1880
10000	Red Rock,* *l,* Cardigan	2 0 0...	— ...	... 9 4 0...	0 2 0...	Jan.	1878
12000	Roman Gravels, *l,* Salop*	7 10 0...	9¾... 9¼ 9¾	... 9 1 0...	0 0 5	May	1882
4000	Rhydalun,* *l,* Wales	10 0 0...	— ...	... 0 5 0...	0 0 5	Feb.	1880
512	South Caradon, *c,* St. Cleer†	1 5 0...	20 ... 25	27½...749 0 0...	1 0 0...	July	1880
6123	South Condurrow, *t, c,* Camborne†...	6 5 6...	10 ... 9	10 ... 9 9 0...	0 6 0...	Aug.	1882
9000	South Darren, *l,* Cardigan*	1 16 0...	1¼... 1	1¼... 0 4 0...	0 2 0...	Apr.	1880
6000	South Wheal Frances, *t,* Illogan†§	9 2 4...	13 ... 11	12 ... 40 15 6...	0 0 10	July	1880
6000	Tincroft, *c, t,* Pool, Illogan†§	11 10 0...	13 ...11½	12½... 51 3 6...	0 5 0...	Dec.	1881
15000	Van, *l,* Llanidloes*	4 5 0...	6⅛... 6	6½... 25 10 6...	0 2 6...	July	1882
12000	West Holway,* *l,* Flintshire	1 0 0...	1½... 1	1½... 0 1 0...	0 1 0...	Oct.	1880
512	West Tolgus, *c,* Redruth§	99 0 0...	19 ... 17	19 ... 33 0 0...	1 0 0...	Jan.	1879
2400	West Wheal Seton, *c,* Camborne†§...	15 0 0...	22⅜...17½	22½...111 10 0...	0 0 3	Apr.	1878
6000	West Basset, *c,* Illogan†	7 0 4...	8 ... 7½	8 ... 28 3 8...	0 6 8	Apr.	1882
12000	Wheal Crebor, *c,* Tavistock	2 4 0...	3⅜... 3½	3½... 0 13 9...	0 1 0...	Mar.	1882
15000	Wheal George,* *l, bl,* Carnarvon	1 0 0...	1⅝...1¾	1¾xd . 0 4 0...	0 1 0...	Oct.	1882
6000	Wheal Grenville, *t,* Camborne	15 0 0...	10½... 9½	10 ... 1 12 6...	0 0 5	Sept.	1882
4295	Wheal Kitty, *t,* St. Agnes§	5 12 0...	2½... 2	2½... 12 18 6...	0 0 1	Jan.	1881
3000	Wheal Peevor, *t,* Redruth	7 11 0...	7 ... 3½	4½ .. 8 13 6...	0 0 4	Mar.	1882

FOREIGN DIVIDEND MINES

35500	Alamillos, *l,* Spain*†	2 0 0...	2 ... 1½	2xd ... 2 8 2...	0 2 6...	Oct.	1882
130000	Almada and Tirito Consol., *s*†	1 0 0...	⅞... ⅝	⅞ ... 0 6 3...	0 1 0...	May	1876
20000	Australian, *c,* South Australia†	7 7 6...	2¾... 2¾	2¾xd 1 7 6...	0 2 0...	Aug.	1882
15000	Birdseye Creek, *g,* California*	4 0 0...	1⅜... 1⅜	1⅜ ... 1 1 0...	0 3 0...	June	1882
20000	Cape Copper Mining,*† South Africa	7 0 0...	54 ...53½	54½... 48 7 6...	1 0 0...	Sept.	1882
50000	Copiapo, *c,* Chili* (£4 shares)†	3 8 0...	4¾... 3¾	4¼ ... 1 18 9...	0 1 0...	Sept.	1882
70000	English & Australian,*† *c,* S. Aust...	2 10 0...	1½... 1¼	1½ ... 3 0 9...	0 1 0...	Mar.	1882
2000	Eng.-Aus., *g,* Vict.* pref. (20000 o.)	1 0 0...	½... ¼	½ ... 0 3 8...	0 3 8	Apr.	1882
25000	Fortuna, *l,* Spain*†	2 0 0...	3½...2½	3½xd... 8 2 0...	0 1 0...	Oct.	1882
60000	Frontino & Bolivia, *g,* New Gran.*†	2 0 0...	2⅞... 2⅝	2⅞ ... 0 9 0...	0 1 9	July	1882
200000	La Plata, *s-l,* Leadville†	2 0 0...	2¼... 2	2¼ ... 0 12 11...	0 1 3	Oct.	1882
15000	Linares, *l,* Spain*†	3 0 0...	4 ... 3	4 xd... 19 0 10...	0 1 0	Oct.	1882
185164	Mason & Barry* *c,* Portugal	10 0 0...	18 ...16¾	17¼xd 1 15 0...	0 10 0	Oct.	1882
66000	New Quebrada, *c,* Venezuela†	5 0 0...	5¼... 4¾	5 ... 0 9 0...	0 3 6	Aug.	1882
1000	Ditto, Debentures	100 0 0...	99 ... 95	100 ... 6 per cent.			
3000	Oregon, *g,* Oregon, U.S. (pref. sh.)	4 0 0...	— ...	... 0 2 6...	0 2 6	Dec.	1880
50000	Panulcillo, *c,* Chili*†	4 0 0...	7 ... 6½	7xd ... 1 6 9...	0 6 0	Oct.	1882
25000	Pitangui,* *g,* Brazil (in.6000 £1 pd).	0 10 0...	— ...	... 0 1 0...	0 1 0	Sept.	1880
14000	Pontgibaud, *s-l,* France†	20 0 0...	14 ... 12	14 ... 28 17 6...	0 7 3	Dec.	1880
100000	Port Phillip, *g,* Clunes*† (£2 shares)	1 0 0...	¼ ... ⅛	¼ ... 1 14 2...	0 0 10	Feb.	1881
50000	Rara Fortuna,* *s,* Argent. Republic.	1 0 0...	— ...	... 0 3 0...	0 1 0	July	1882
54000	Richmond Consol., *s,* Nevada*†	5 0 0...	9¾... 8⅛	9 ... 13 16 6...	0 5 0	Aug.	1882
24532	Rio Tinto,*c, Mortgage Bds., Huelva.	100 0 0...	101 ... 99	101xd... 5 per cent.			
325000	Ditto, shares	10 0 0...	26 ... 25	26xd... 2 2 0...	0 10 0	Nov.	1882
40000	Santa Barbara,* *g,* Brazil	0 10 0...	— ...	... 0 12 9...	0 1 0	May	1882
120000	Scottish-Australian Mining Co.*†	1 0 0...	2½... 2	2¾ ... 12½ p. cent.		Oct.	1882
80000	Ditto, New	0 10 0...	1½... 1	1¾ ... 12½ p. cent.		Oct.	1882
22500	Sierra Buttes, *g,* California*†	2 0 0...	1⅝... 1⅜	1⅝ ... 2 4 0...	0 1 6	Apr.	1882
40625	Ditto, Plumas Eureka	2 0 0...	1⅞... 1½	1¾ ... 2 16 0...	0 3 0	Apr.	1882
253000	St. John del Rey*† (£5 Stock and multiple dealt in)		180 200	... 5 p.c. for half-year, June			1882
160000	Tambracherry,* *g,* Wynaad	1 0 0...	1 ... ⅝	⅞ ... 0 0 6...	0 0 6	Aug.	1882
91896	Tharsis,* *c, sul,* Spain (31100 s. 7*l.*p.)†	10 0 0...	43 ... 42	43 ... 31 6 0...	2 10 0	May	1882
20000	Tolima,* *g, s,* Colombia (A & Bshares)	5 0 0...	4 ... 4¼	5¼ ... 2 1 6...	0 5 0	Dec.	1881
25000	Victoria* (London), *g,* Australia	1 0 0...	— ...	... 0 13 10...	0 0 8	Feb.	1881
100000	Victorine (Nevada, U.S.) Deb. Bds...	1 0 0...	— ...	... 0 2 0...	0 0 6	June	1882
5000	Western Andes, *s,* Colombia	5 0 0...	— ...	... 3 17 6...	0 0 3	Aug.	1882
2100	W. Prussian (5500 pref. sh. £10 pd.)	10 0 0...	10 ... 9	10 ... 4 2 0...	0 0 8	Apr.	1881
64800	Yorke Pen., *c,* South Aust. Pref.†...	1 0 0...	1½ ... ⅞	1⅛ ... 0 3 0...	0 0 3	May	1882

§ Have made calls since last dividend was paid.

NON-DIVIDEND BRITISH MINES.

Shares.		Paid.	Last wk.	Clos pr
25000	Aberduna,* *l,* Denbigh	1 10	0... 1⅛ .. 1	1⅛
30000	Alston United,* *l,* Cumberland	1 0	0... — ...	
12000	Anderton, *t, c, l,* Devonshire	1 0	0... 1⅜...1⅛	1⅜
12000	Assheton, *l,* Carnarvonshire*	5 0	0... — ...	
12000	Bedford Unit.,* *c,* Tavis.(£1 liab.)...	0 12	0... 2¼...2	2¼
30000	Bodidris,* *l, bl,* Denbighshire	1 0	0... — ...	
30000	British,* *s-l, bl,* Wrexham	1 0	0... 1⅛... ⅞	1⅛
30000	Beuno Consols,* *s-l,* Flintshire	1 0	0... 2 ...1½	2
20000	Bwlch United,* *l,* Cardigan	0 17	6... ¾... ⅛	¾
50000	Carn Camborne,* *t, c,* Camborne	1 0	0... 1¾...1⅝	1⅜
20000	Carnarvon,* *c,* Carnarvonshire	1 0	0... ⅝... ⅜	½
37500	Carnarvonshire Cons.,* *l,* Llanrwst.	2 0	0... 1⅜...1⅛	1¼
6000	Cathedral Cons., *c, t,* Gwennap	0 18	0... — ..	
20000	Central Foxdale,* *l,* Isle of Man	1 17	6... — ...	
25000	Coed-y-Fedw & Pant-y-Buarth,* *l*	1 0	0... 1½... 1	1½
2450	Cook's Kitchen, *t,* Illogan†§	30 14	9... 42½...37½	42½
10000	Cornwall Great Cons.* (4500 issued)	1 0	0... — ...	
4000	Craignant Bach,* *l,* Cardigan	5 0	0... 6½... 6	6½
6400	Crook Burn,* *l,* Cumberland	0 17	0... ½... ⅜	½
45000	D'Eresby Mountain, *l, bl,* Llanrwst.	0 10	0... 1½... 1	1½
12000	Derwent,* *l,* Durham	4 0	0... 1¼... 1	1¼
53000	Devon,* *c, bl,* Tavistock	1 0	0... — ...	
60000	Devon Friendship,* *c, ars,* Tavistock	1 0	0... ⅝... 7/16	9/16
12000	Devon Great United* (2*l.* shares) ...	1 5	0... ⅜... ⅜	⅜
50000	Drakewalls,* *t, c* Calstock	0 15	0... ⅜... ⅜	⅜
10000	Dubby Syke, *l,* Durham*.	1 0	0... — ...	
12000	East Blue Hills, *t,* St. Agnes	0 5	0... ⅝... ½	⅝
6000	East Botallack, *t,* St. Just	0 12	6... 1¼... 1	1¼
6144	East Caradon, *c,* St. Cleer†	4 13	0... 1... ¾	1
4000	East Chiverton, *l,* Perranzabuloe	10 12	3... 1¾...1¾	1¾
30000	E. Craven Moor,* *l.* Pateley Bridge	1 0	0... ¾... ½	¾
15900	East Devon Cons.,* *c,* Buckfastlgh.	2 0	0... — ...	
30000	East Herodsfoot, *s-l,* Liskeard	1 0	0... 1 ... ¾	1
20000	East Long Rake,* *l,* Wales	1 0	0... — ...	
25500	East Roman Gravels,* *l,* Salop	1 0	0... ⅝... ½	⅝
100	East Tregembo, *t, c,* Marazion	5 0	0... 20 ... 15	20
18000	East Van, *l,* Llanidloes*	5 0	0... — ...	
2048	East Wheal Lovell, *t,* Helston	15 13	6... 1½... 1	1½
100000	East Wheal Rose,* *s-l,* Newlyn East	1 0	0... 1¼...1⅛	1¼
12000	Gawton,* *c,* Tavistock (2*l.* shares)...	1 18	0... ½... ⅜	½
40000	Glasg. Car.,c* [30000sh. £1 pd., 10000	15s. pd.]		¾... ½	¾
14000	Glenroy,* *s-l,* Isle of Man	4 0	0... ⅝... ¼	⅜
10000	Goddards,* *l, b,* Carnarvon	1 0	0... 1¼... 1	1¼
32000	Gogman,* *l,* Cardiganshire	0	0... 1½... 1	1½
25000	Goodevere, *t,* St. Cleer	0	0... 1⅝...1⅛	1¼
8500	Gorsedd and Merllyn Con., *l,* Flint.	2 10	0... 3 ...2½	3
20000	Great Dyliffe* (10000 sh. issued)	1 0	0... — ...	
100000	Great Polgooth United,* *l*	1 0	0... ⅛... ⅜	½
6000	Great West Chiverton, *l,* St. Agnes.	0 5	0... ⅜... ¼	⅜
10000	Gwern-y-Mynydd,* *s-l,* Flint(pref.)	4 0	0... 1½... 1	1½
70000	Gwydyr Amal.* *l, bl,* Carnarvon	1 0	0... — ...	
12000	Herodsfoot, *l,* near Liskeard†	0 12	0...4s.6s...	4s. 6s.
18000	Hingston Down, *c,* Calstock*†	0 13	0... ⅞... ⅝	⅞
20000	Kirkmichael,* *l* (2000 unissued)	1 0	0... — ...	
25000	Kit Hill Gt. Cons.,* *c, ars-m,* (2*l.* sh.)	0 15	0... ⅝... ⅜	⅝
15000	Lady Ann,* *s-l,* Llanarmon	1 0	0... — ...	
30000	Lady Ashburton,* *s,* Callington	1 0	0... ⅛... 1/16	⅛
25000	Langford,* *s, c,* Callington	0 10	0... ½... ⅜	½
15000	Llandegla,* *l,* Wales	1 0	0... — ...	
5120	Lovell, *t,* Wendron	0 16	0... ⅜... ⅛	⅜
9000	Marke Valley, *c,* Linkinhorne†	7 3	0... 1 ... ¾	1
6000	Medlyn Moor, *t,* Wendron	3 15	10... — ...	
20000	Mona Consols,* *c,* Anglesea	1 0	0... 1¼... 1	1¼
15000	Monkstown,* *man,* Devon	2 0	0... — ...	
20000	Mostyn Consols,* *s-l,* Flint	1 0	0... 3½... 3	3½
10000	Mynydd Gordduc, *l,* Cardigan*	4 0	0... — ...	
12000	Morfa Du, *z, g, s,* Anglesea*	1 0	0... ⅝... ⅜	⅝
80000	Mounts Bay,* *c, t,* Breage	1 0	0... 1½... ⅞	1⅛
6144	Mount Carbis, *t, c,* Redruth	1 5	0... 4 ...2½	4
2400	New Cook's Kitchen, *t,* Illogan	8 13	0... 7 ... 5	7
8000	New Dolcoath, *t, c,* Camborne*	3 0	0... — ...	
100000	New Great Wheal Vor, *t,* Breage	0 10	0... — ...	
10000	New Holmbush,* *t, c,* Callington	3 0	0... — ...	
6000	New Kitty, *t,* St. Agnes	0 16	0... 3 ...2½	2¾
12000	New Penrose,* *t, c,* Helston	1 0	0... 1¼...1⅛	1¼
15000	New Redmoor,* *var,* Callington	1 5	0... — ...	
17500	New Terras,* *t,* St. Austell	0 5	0... ⅜... ¼	⅜
3500	New Tincroft,* *t,* Lelant	6 0	0... — ...	
12000	New Trumpet,* *t,* Wendron	1 0	0... 1¼... 1	1¼
12000	New West Caradon, *c,* Liskeard	0 4	6... ⅜... ½	⅜
3000	New Wheal Peevor, *t,* Redruth	0 10	0... — ...	
35000	New Wye Valley, *l,* Montgomery.*	1 0	0... 1 ... ¼	1
12000	North Blue Hills, *t,* St. Agnes	0 2	6... ⅛... ⅛	¼
5328	North Busy, *t, c,* Scorrier †	1 5	8... ⅞... ⅝	⅞
10000	N. D'Eresby Mount.,* *l, bl,* Carnarv.	1 0	0... — ...	
25000	North Goginan,* *l,* Cardiganshire...	1 0	0... 1¼... ¾	1¼

NON-DIVIDEND MINES—*continued.*

Shares.		Paid.	Last wk.	Clos pr.
6400	North Green Hurth,* (3400 1*l.* pd.)	0 2	6... ⅜... ⅛	⅜
25000	North Grogwinion,* *s-l,* Cardigshr.	1 0	0... 1⅛... ¼	⅜
12000	North Herodsfoot, *l,* Liskeard	0 12	6... 1⅛... 1	1¼
50000	North Molton,* *c, mn, s,* Devon	1 0	0... ½... ⅜	½
6000	North Penstruthal, *t, c,* Gwennap	2 7	6... ½... ⅜	½
2936	North Treskerby, *c,* St. Agnes	1 0	0... — ...	
8000	Northern,* *l,* Durham	8 17	10... ¾... ¼	¾
40000	Okel Tor,* *t, c, a,* Calstock	1 0	0... — ...	
80000	Old Shepherds *s-l,* Cornwall	1 0	0... ⅞... ⅝	1
60000	Owen Vean & Tregur.,* *t,c,* Marazion	1 0	0... 1⅛... ¾	1
12000	Pandora,* *l,* Carnarvon	2 0	0... ¾... ⅝	¾
45000	Parys Corporation,* *c,* Anglesea	1 0	0... ⅜... ⅛	⅜
7500	Pateley Bridge, *l,* Yorkshire	1 0	0... — ...	
6000	Pedn-an-drea, *t,* Redruth	2 18	0... 3¼... 3	3¼
12000	Pelyn Wood, *c,* Lanivery	0 2	0... ⅜... ¼	⅜
20000	Penegarreg, *l,* Carmarthenshire	1 0	0... ½... ⅜	½
12000	Pen-yr-Orsedd,* *l,* Flintshire	1 0	0... 1⅛...1⅛	1¼
15000	Perran Consols,* *s-l*	1 0	0... 1 ... ¾	1
12000	Perran Wheal Alfred, *c*	0 2	6... ⅜... ⅛	⅜
100000	Pioneer,* *var.* Wales	1 0	0... — ...	
3000	Polcrebo, *t,* Crowan	0 12	6... 1 ... ¾	1
10000	Polrose, *t,* Cornwall	1 2	6... ⅛... ⅛	¼
10000	Port Nigel,* *s-l,* Carnarvonshire	2 0	0... — ...	
6000	Prince Royal, *t, c, s-l,* St. Agnes	1 0	6... — ...	
12000	Prince of Wales, *c, s,* Calstock	0 17	0... ⅝... ½	⅝
15000	Royalton,* *t,* St. Columb	1 0	0... 1¼... 1	1¼
36000	Russell United,* *c,* Tavistock	0 15	6... ⅜... ¼	⅜
30000	Silver Hill,* Callington	1 0	0... — ...	
50000	Sinclair,* *l, bl,* Whitford	1 0	0... 1⅛... 1	1⅛
40000	Sortridge,* *c,* Horrabridge	1 0	0... 1⅛... 1	1⅛
6000	South Carbis, *t, c,* Redruth	0 10	0... 2⅛...2¼	2⅛
35000	So. Devon Unit.,* *c,* Buckfastleigh.	1 0	0... 1 ... ¾	1
5000	South Dolcoath, *c, t,* Illogan	0 19	0... 1 ... ¾	1
6000	South Penstruthal, *t, c,* Gwennap	2 7	6... ⅝... ½	⅝
6000	South Tolcarne, *t, c,* Camborne	5 1	6... 3⅛... 3	3¼
2043	South Wheal Crofty, *c,* Illogan	2 17	0... 13 ... 11	13
40000	Tamar, *s-l,* Bearalston*	1 0	0... 1⅞...1⅝	1⅞
110000	Tankerville Gt. Consols, *l,* Salop*.	1 0	0... 7/16...5/16	7/16
6400	Teesdale,* *l,* Durham (pref.)	1 0	0... — ...	
20000	Tin Hill,* *t,* St. Stephens	1 0	0... 1⅜...1⅛	1⅜
12000	Trebartha Lemarne, *t,* Northill	0 1	6... ⅞... ⅝	⅞
6000	Tregembo, *t, c,* Cornwall	3 0	0... 3¼...3⅛	3¼
100000	Tresavean,* *t, c,* Gwennap	1 0	0... 13/16...11/16	13/16
60000	Trevarren United,* *t,* Cornwall	1 0	0... 1 1/16...1 1/16	1 1/16
8000	Trevaunance, *t,* St. Agnes	0 2	0... 2⅛...2¼	2⅛
12000	Trevince Consols, *t, c,* Gwennap	0 5	0... — ...	
35000	Un. Van & Glyn,* *l,* (& 17500 pref. sh)	1 0	0... ⅛... ⅜	⅛
1000	Vaughan,* *l,* Cardiganshire	10 0	0... — ...	
8000	Victor,* *l,* Cilcen, Flintshire	0 14	0... — ...	
2000	Violet Seton, *c,* Camborne	12 0	0... 20 ... 15	20
15000	Vincent,* *t,* Altarnun	1 0	0... — ...	
20000	Walkham United,* *t, c,* Tavistock	1 0	0... 5/16... 3/16	3/16
12000	West Assheton, *l,* Carnarvon	1 0	0... — ...	
12000	West Caradon, *c,* St. Cleer	0 7	9... 1⅛... 1¼	1⅛
3000	W. Craven Moor, *l,* Pateley Bridge*	10 0	0... — ...	
12000	West Crebor, *c,* Tavistock	0 6	6... ½... ⅜	½
10240	West Devon Consols, *c,* Calstock	1 2	0... 1 ... ¾	1
10000	West Godolphin, *t, c,* Breage	1 1	0... 1¾...1¼	1¾
6000	West Kitty, *t,* St. Agnes	0 12	0... 15 ...12½	15
20000	West Lisburne,* *l,* Cardigan	1 0	0... 1 ... ¾	1
3000	West Mary Ann, *l,* Menheniot	1 13	0... 1 ... ¾	1
20000	W. Pateley Bridge, *l,* Yorkshire	1 0	0... ½... ⅜	½
6000	West Polbreen, *t, c,* St. Agnes	0 5	6... 1 ... ¾	1
5190	West Poldice, St. Day†	6 5	0... 4¼... 3	4
2048	West Wheal Frances, *t,* Illogan†	33 8	3... 12½...11½	12
3000	West Wheal Peevor, *t,* Redruth	3 0	6... 11 ...10½	11
6000	Wheal Agar, *c,* Illogan†	16 6	0... 17½...12¾	17½
6144	Wheal Basset, *c,* Illogan†	6 17	0... 10 ... 7⅛	10
3000	Wheal Boys, *t,* Redruth	0 16	0... 1 ... ¾	1
12000	Wheal Coates, *t,* St. Agnes	0 4	0... ⅜... ⅜	⅜
2585	W. Comf., & No. Tres., *t, c,* Gwennap	2 2	0... 1¾... 1¾	1¾
53000	Wheal Elizabeth,* *t,* Cornwall	1 0	0... — ...	
12288	Wheal Jane, *t,* Kea†	2 1	6... 1½... ⅞	1⅛
12000	Wheal Jewell, *c,* St. Hilary	1 0	6... ⅝... ⅜	¾
25000	Wh. Hony and Trelawny, *s-l,* Lisk.	2 0	0... 2½... 2⅛	3
12000	Wheal Lusky, *t,* Callington	0 1	6... ½... ⅜	½
2000	Wheal Owles, *t,* St. Just†	7 3	0... 8 ... 7	8
6000	Wh. Prussia, & Cardrew, *t, c,* Rdrth	2 10	0... 1 ... ¾	1
6000	Wheal Sisters, *t,* Lelant	3 10	0... 1½... 1	1⅛
4096	Wheal Uny, *t, c,* Redruth	16 19	6... 5 ... 4	5
4000	Ystwith,* *l,* Cardigan	1 0	0... ⅜... ⅛	⅜

bl, blende; *c,* copper; *g,* gold; *l,* lead; *s,* silver; *sl,* slate; *s-l,* silver-lead; *t,* tin; *z,* zinc; *i,* iron; *a,* arsenic.

*Limited Liability Companies; † quoted on the Stock Exchange

‡ have paid dividends.

NON-DIVIDEND FOREIGN MINES; FOREIGN AND MISCELLANEOUS STOCKS; TRAMWAYS; INSURANCE COMPANIES; GAS, IRON AND COAL, WAGON COMPANIES, &c.

NON-DIVIDEND FOREIGN MINES

Shares.		Paid.	Clos. pr.
150000	Akankoo,* *g,* Gold Cst.(100000 iss.)	0 12 6...	⅜ ⅝
64880	Anglo-African,*d, Kimberley,†	10 0 0...	3 5
12000	Arendal, *c,* Norway	4 0 0...	— ...
20000	Asia Minor,* *s-l,* Lidjessy, Sivas	0 12 6...	⅛ ¾
30000	Bratsberg,* *c,* Norway	2 0 0...	2¼ 2½
40000	Brazilian, *g,* * Brazil	1 0 0...	— ...
200000	British Australian,* *g,* N. So. Wales	1 0 0...	— ...
18000	Broadway,* *g,* California	5 0 0...	½ 1
10000	Buena Ventura,* *l,* Spain (fy.pd)...	2 0 0...	— ...
130000	California,* *g,* Colorado	1 0 0...	1 1⅛
30000	Callao Bis,*g, Venezuela	1 0 0...	— ...
15000	Canada,* *g*	1 0 0...	— ...
82500	Canadian, *c, sul,* * Canada†	4 0 0...	1 1¾
23000	Central Jagersfontein Diamond*...	5 0 0...	¾ 1¼
200000	Cherambadi (Wynaad) District,* *g.*	1 0 0...	— ...
500000	Chile,* *g,* Venezuela	1 0 0...	⅞ 1⅛
108749	Chontales, *g, s,* Nicar.*† (98000 las)	1 0 0... 0	⅛
75000	Colar,* *g,* Mysore	0 15 0...	— ...
75000	Colombian Hydraulic, *g,* Colombia	1 0 0...	— ...
65000	Colorado United, *s-l* Colorado*†..	5 0 0...	1¾ 2
100000	Cootacovil,* *g,* Wynaad	0 15 0...	½ ¾
107363	Corporation South Australian Cop.	1 0 0...	— ...
20000	Devala Central,* *g,* Wynaad	1 0 0...	⅛ ¾
100000	Devala Moyar,* *g,* Wynaad†	1 0 0...	¾ 1
75000	Devala Provident,* *g,* Wynaad†	0 10 0...	1/16 3/16
200000	Dingley Dell,* *g,* Devala, India	1 0 0...	— ...
100000	Don Pedro North del Rey*	1 0 0...	⅛ ⅜
205168	Eberhardt, *s,* Nevada*†	1 0 0...	¼ ½
65000	Eureka,* *s,* Nevada	1 0 0...	— ...
100000	Exchequer, *g, s,* California*†	1 0 0...	1/16 3/16
160000	Flagstaff District,* *s.g.* Utah	1 0 0...	— ...
65000	Gold Coast,* *g,* Wassau	1 0 0...	— ...
140000	Gold Hill,* *g,* North Carolina	1 0 0...	1 1¼
250000	Gold Mining Assn. of Canada*	1 0 0...	— ...
75000	Great Southern Mysore,* *g*	1 0 0...	— ...
120000	Hoover Hill,* *g,* North Carolina	1 0 0...	1/16 3/16
10000	Hornachos,* *s-l,* Spain